

MISSION STATEMENT

*Valparaiso University,
a community of learning dedicated to excellence
and grounded in the Lutheran tradition
of scholarship, freedom, and faith,
prepares students to lead and serve
in both church and society.*

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ANNOUNCEMENTS FOR 2007-2008 SESSIONS
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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.

Statement on Equality of Opportunity. Valparaiso University provides equality of opportunity to its applicants for admission, enrolled students, graduates, and employees. The University does not discriminate with respect to hiring, continuation of employment, promotion, and tenure, other employment practices, applications for admission, or career services and placement on the basis of race, color, gender, age, disability, national origin or ancestry, sexual orientation, or (as qualified herein) religion. An institution committed to its Lutheran tradition, the University reserves its right to promote the teaching of the church and to exercise preferences in admissions and employment-related practices in favor of Lutherans.

Graduation Rate of Entering Freshmen. The graduation rate for all students entering Valparaiso University as first-time freshmen during the 2000-2001 academic year was 76.1%. This graduation rate represents the percentage of students entering Valparaiso University as first-time (i.e., new) full-time degree-seeking freshmen during the 2000 Summer and Fall semesters who subsequently were awarded baccalaureate degrees by Valparaiso University within six calendar years (i.e., through August 2006).

UNIVERSITY CALENDAR FOR 2007-2008

For the Colleges of Arts and Sciences, Business Administration, Engineering and Nursing.
For the Law School, consult the Law School Bulletin.

SUMMER I 2007

May 22, Tuesday. Instruction begins.

May 28, Monday. No classes.

June 29, Friday. Summer Session I closes.

July 2, Monday, 12 Noon. Deadline for all grades.

SUMMER II 2007

July 2, Monday. Instruction begins.

July 4, Wednesday. No classes.

August 10, Friday. Summer Session II closes.

August 13, Monday, 12 Noon. Deadline for all grades.

FALL SEMESTER 2007

August 20-31. Web-based registration confirmation for continuing students.

August 24, Friday. Registration for new students who did not participate in summer FOCUS registration.

August 25, Saturday, 8:00 a.m. Fall Welcome orientation for freshmen begins.

August 28, Tuesday, 8:00 a.m. Instruction begins.

August 28-October 19. Dates for first half short courses.

September 4, Tuesday, 5:00 p.m. Deadline for adding first half short courses.

September 4, Tuesday, 5:00 p.m. Deadline for late registration for fall semester.

September 4, Tuesday, 5:00 p.m. Deadline to add or drop a course without grade of W.

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.

September 11, Tuesday, 5:00 p.m. Deadline to file for S/U grade for first half short courses.

September 25, Tuesday, 5:00 p.m. Deadline to file for S/U grade for regular courses.

September 28, Friday, 5:00 p.m. Deadline for withdrawing from first half short courses with grade of W.

October 1, Monday. Last day to file application of candidacy for the associate's and bachelor's degrees to be conferred in May or August, 2008.

October 6, Saturday. Homecoming Day.

October 11-12 Thursday-Friday. Fall Break. No classes.

October 15, Monday. Last date for partial refund of University charges.

October 17, Wednesday, 5:00 p.m. Deadline for arranging course intensification.

October 20-21, Saturday-Sunday. Family Weekend.

October 22-December 14. Dates for second half short courses.

October 24, Wednesday, 5:00 p.m. Deadline for adding second half short courses.

October 29-November 16. Advance registration for Spring Semester, 2008.

October 31, Wednesday, 5:00 p.m. Deadline for withdrawing from regular courses with grade of W.

November 5, Monday, 5:00 p.m. Deadline to file for S/U grade for second half short courses.

November 16, Friday, 6:30 p.m. Thanksgiving recess begins.

November 26, Monday, 8:00 a.m. Thanksgiving recess ends.

November 28, Wednesday, 5:00 p.m. Deadline for withdrawing from second half short courses with grade of W.

December 7, Friday. Last day for tests in courses of 3 credits or more. Last day to petition for change in date of final examinations.

December 14, Friday, 5:00 p.m. Deadline to officially withdraw from the University for Fall Semester. Last day to file petitions to change registration.
December 14, Friday, 10:00 p.m. Instruction ends.
December 15, Saturday, Reading day.
December 16, Sunday. December Commencement Ceremony.
December 17, Monday, 8:00 a.m. Final examinations begin.
December 21, Friday, 5:30 p.m. Final examinations end. Semester ends.
December 24, Monday, Noon. Deadline for reporting all grades.

SPRING SEMESTER 2008

January 1-January 11. Web-based registration confirmation for continuing students.
January 7, Monday. Orientation and registration for new students.
January 9, Wednesday, 8:00 a.m. Instruction begins.
January 9-March 17. Dates for first half short courses.
January 16, Wednesday, 5:00 p.m. Deadline for adding first half short courses.
January 16, Wednesday, 5:00 p.m. Deadline for late registration for spring semester.
January 16, Wednesday, 5:00 p.m. Deadline to add or drop a course without grade of W.
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 21, Monday. Observation of Martin Luther King's Birthday.
January 25, Friday, 5:00 p.m. Deadline to file for S/U grade for first half short courses.
February 8, Friday, 5:00 p.m. Deadline for withdrawing from first half short courses with grade of W.
February 8, Friday, 5:00 p.m. Deadline to file for S/U grade for regular courses.
February 26, Tuesday. Last date for partial refund of University charges.
February 29, Friday, 5:00 p.m. Deadline for arranging course intensification.
February 29, Friday, 6:30 p.m. Spring recess begins.
March 17, Monday, 8:00 a.m. Spring recess ends.
March 18-May 6. Dates for second half short courses.
March 20, Thursday, 5:00 p.m. Deadline for adding second half short courses.
March 21, Good Friday. No classes.
March 25, Tuesday, 5:00 p.m. Deadline for withdrawing from regular courses with grade of W.
April 1, Tuesday. Last day to file application of candidacy for the associate's and bachelor's degrees to be conferred in December, 2008.
April 1, Tuesday, 5:00 p.m. Deadline to file for S/U grade for second half short courses.
April 14-30. Advance registration for Fall Semester, 2008.
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, 5:30 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. 134th Annual Commencement

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

VALPARAISO IN BRIEF

Chapel of the Resurrection

The Aims of the University

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 human society, 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.

These basic commitments enable Valparaiso University to graduate students whose individual achievements and aspirations are linked invariably to larger social, moral, and spiritual horizons of meaning and significance. 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.

A Distinctive Institution

All American colleges and universities bear a family resemblance to one another as they come from a common set of ancestors in Europe and colonial America. Within that larger family, Valparaiso University belongs to a small and distinctive group. It is neither a large research university nor a small liberal arts college. At the same time that it promotes a basic liberal

arts curriculum, it features strong undergraduate colleges of Engineering, Nursing and Business Administration, a professional direction lacking in the conventional liberal arts college. Conversely, the University is not a cluster of professional colleges which merely pays lip service to the liberal arts. Education in the liberal arts is the foundation of every academic program, and the College of Arts and Sciences, the largest unit in the University, carries on many vital programs of its own.

This combination of liberal and professional studies of such variety within an institution of modest size is rare in American higher education. Broad enough in curriculum and in variety of programs to be a university, still Valparaiso University emphasizes undergraduate teaching in the manner of the traditional small college, with many small classes and strong individual guidance. Valparaiso University is also a founding member of the Associated New American Colleges, a national consortium of small to mid-sized colleges and universities that are committed to the ideal of integrating liberal and professional studies.

Valparaiso University's unique status as an independent Lutheran University supplies the rationale for this special combination of liberal and professional studies. No church body has control or authority over the University, which is owned and operated by the Lutheran University Association. Valparaiso is therefore both free and responsible to realize an educational ideal informed by the best traditions of Lutheran Christianity and of liberal and professional studies.

Faith and Learning

The University's concern for the personal and intellectual development of each student is rooted in its Lutheran heritage. This Christian philosophy of education guides both the design of its curriculum and the approach to learning that it fosters. Beyond the courses in theology which the curriculum provides, the University emphasizes a Christian freedom which liberates the scholar to explore any idea and theory, a vocation freely uniting faith and intellectual honesty. In its residential life the University leads students to accept personal responsibility for their development and encourages a sense of caring for one another. Standing together at the center of the campus, the Chapel of the Resurrection and the Christopher Center for Library and Information Services express the University's belief in the creative relationship between faith and learning. The University's motto, too, points up this relationship: *In luce tua videmus lucem*, "In Thy light we see light."

The Chapel is the focal point for worship, the proclamation of the Gospel and many cultural events. Both Sunday and daily services bring together members of the University community who choose to worship together. Students and professional Chapel staff offer a broad and creative ministry to the whole community. As the University welcomes students of varied denominations and religious traditions, so it welcomes the involvement of community churches in those students' lives. A Roman Catholic student center, for example, is located next to the campus, and some churches of other denominations offer transportation to their services in the town.

The Setting of the University

The spacious campus of 310 acres contains more than seventy academic and residential buildings, many of them built within the past two decades. The campus is located in the small city of Valparaiso, attractively situated in a rural setting at the edge of the busy industrial district of Northwest Indiana. Fifteen miles to the north, on the shore of Lake Michigan, are the Indiana Dunes. The city of Chicago with its vast cultural resources, an hour's drive from the campus, can be reached easily by train and bus. The University often charters buses so that students and faculty can take advantage of the theatres, museums and other educational benefits of this great city. Many programs of the University use the region--rich in natural, urban and industrial opportunities for field trips and investigative activities.

An Unusual History

In its 148 year history, the University has passed through three distinct phases. Begun by Methodists in 1859 as an institution pioneering in coeducation, the Valparaiso Male and Female College was forced by the reverses of the Civil War to close its doors in 1871. It was revived in 1873 by an enterprising educator, Henry Baker Brown, as the Northern Indiana Normal School. "Mr. Brown's School," a flourishing private, proprietary institution, was renamed Valparaiso College in 1900 and rechartered as Valparaiso University in 1907. During the next twenty years, it won national recognition as a low-cost, no-frills institution of higher learning which served thousands of students who might not otherwise have been able to afford a good education. Many alumni from this period achieved distinction in their fields as governors, legislators, scientists, business leaders and other professionals. However, after World War I the University went into decline and bankruptcy; then, in 1925, The Lutheran University Association purchased it, beginning the modern phase of the University's history. The Association, an Indiana corporation composed of men and women, the majority of whom are affiliated with Lutheran congregations, is a national organization whose members represent the principal regions of the United States.

Profile of Students and Faculty

The heart of an academic institution is its students and faculty. Valparaiso University's student body is selected from a large number of applicants from all states in the nation and from many foreign countries. Unlike most American colleges, which draw the majority of their students from their immediate location, Valparaiso enrolls slightly under 35% of its undergraduate students from Indiana; another 46% of undergraduates come from Great Lakes states. Major contingents come, too, from both East and West coasts. National and diverse in its student body, the University is still a distinctively Midwestern institution which enjoys the friendliness and hard work characteristic of the region. Nearly 55% of the students come from the upper fifth of their high school graduating classes. Approximately fifty National Merit Scholars are enrolled at the University in any given year.

A rich diversity characterizes the University faculty (about 250 full-time and 100 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 periodical 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.

ACADEMIC 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

Christopher Center for Library and Information Resources

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

UNDERGRADUATE DEGREES

Associate of Arts
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 Computer Engineering
Bachelor of Science in Electrical Engineering
Bachelor of Science in Mechanical Engineering
Bachelor of Science in Nursing

GRADUATE DEGREES

Master of Arts
Master of Arts in Liberal Studies
Master of Business Administration
Master of Education
Master of Engineering Management
Master of Science
Master of Science in Nursing
Education Specialist

LAW DEGREES

Juris Doctor
Master of Laws

Requirements and Flexibility

Each degree entails a set of requirements which are specified at appropriate places in this bulletin. These requirements are designed to give structure to each student's education while affording the greatest possible freedom to design an individual academic program. Elsewhere in this bulletin are descriptions of a number of ways by which the University encourages further flexibility and individuality.

An Overview of the General Education Requirements at Valparaiso

These requirements vary somewhat in different degree programs, particularly in the professional colleges. These variations are described in the more detailed presentation of degree requirements elsewhere in this catalog.

1. **Freshman Studies**
(taken during the freshman year)
The Human Experience, two semesters
2. **Academic Area Studies**
Theology: two courses (one in the junior or senior year)
Cultural Diversity: Foreign Language: (two courses) and a Cultural Diversity course
Humanities: two courses, one each . . . from two areas - Fine and Performing Arts, History, Literature, Philosophy
Social Science, two courses
Natural Science, two courses
Quantitative Analysis, one course
Physical Education, one credit hour

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:

Actuarial Science
American Indian Studies Minor
American Studies
Art
Biology
Chemistry
Chinese and Japanese Studies
Chinese Minor
Classics
Communication (Communication Law, New Media-Journalism, Public and Corporate Communication, Public Relations, Television-Radio)
Computer Science
Creative Writing
Criminology
Economics
Elementary Education (Early/Middle Childhood)
English
Environmental Science
French
Geography
Geology
Geoscience
German
Hebrew Minor
History
International Economics and Cultural Affairs
International Service
Japanese Minor
Mathematics
Meteorology
Middle School/Junior High School (Middle Level Education)
Modern European Studies
Music
Music Education
Music Enterprises
Music-Theatre
Philosophy

Physical Education
 Physical Education: Sports Management
 Physical Education: Exercise Science
 Physics
 Political Science
 Pre-Seminary Studies
 Professional Writing
 Psychology
 Secondary Education (Adolescence/Young Adult)
 Social Work
 Sociology
 Spanish
 Theatre
 Theology
 Writing Minor
 Youth, Family, and Education Ministry

Christ College:
 Scholar and Associate Honors Program
 The Humanities

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

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

Interdisciplinary Programs:
 Applied Statistics Minor
 Business Administration Minor
 Environmental Studies Minor
 Ethnic Studies Minor
 Film Studies Minor
 Gender Studies Minor
 Human Aging Minor
 Liberal Arts Business Minor
 Manufacturing Management Minor
 Peace and Social Justice Studies Minor
 Political Communication Minor
 Urban Studies Minor

The College of Nursing:
 Nursing
 B.S.N. completion program for R.N. students
 Accelerated BSN degree option

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

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 advisors, 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.

The Valpo Core Course. The Valparaiso Core Course is a two-semester, ten credit course required of all first-year students not enrolled in the Christ College Freshman Program. The primary subject of this interdisciplinary course is the human experience as great thinkers, writers, and artists have represented it. The primary object of the course is to welcome and initiate new students into this university community and academic life generally, by putting them in dialogue with great teachers and great texts, and of course, with each other, to explore together some of the most essential aspects of human existence, past, present, and future.

The course is interdisciplinary because knowledge is interdisciplinary, and in the global community we now live in the world depends increasingly on people able to make connections across disciplines, across cultures, across oceans, across town. To prepare our students to succeed in this world and live meaningful lives of leadership and service, we recognize the need to introduce them to cultures and traditions other than their own. The reading list is multicultural and international because the world is multicultural and international. At the same time, we recognize the need to help students discover where they come from and where they are, which for the majority means exploring the Judeo-Christian intellectual tradition of the West, which produced, among other great things, this University. Hence, at the core of this Core Course, in the best spirit of Lutheran higher education, is the desire to create dialogues of texts and traditions, and to help our students grow in their understanding of how the past speaks to the present, how the sacred informs the secular.

First-year students need special skills to enter fully into this dialogue and become successful students in the fullest sense. The Valpo Core is designed to help students develop those skills necessary for them to thrive in their studies, skills in close reading and critical thinking, in speaking, and especially in writing. Great opportunities also exist in the course for students to become more adept at retrieving, evaluating, and managing information, as they hook up to the rest of the world through our electronic information services.

Because of the interdisciplinary nature of the Core course, some institutions experience difficulties determining how to apply these credits toward their own general education requirements. CORE 110 may be distributed as 3 credits of English composition and 2 credits of philosophy/theology. CORE 115 may be distributed as 3 credits of non-U.S. History and 2 credits of philosophy/theology.

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 semesters on National Politics, Urban Politics, Science and Technology, International Development, Foreign Policy, Economic Policy and Justice.

The Valparaiso University course POLS 120 is a prerequisite to this program. This program is not open to students who have participated in the Semester on the United Nations Program.

Students register at Valparaiso University for the Washington Semester and pay to Valparaiso University the normal general fee of this University and the tuition and fees of the American University. Expenses for travel, meals and lodging are paid directly by the students. The Washington Semester

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, sponsored by a group of eleven Lutheran colleges and Universities. 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 also 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 not 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 Dean of the College of Arts and Sciences.

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 not 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.

Chicago Arts Program. The Chicago Arts Program is a 15-week guide to the contemporary art world. In addition to attending a wide range of cultural events, students live in Chicago and meet and work with local artists and arts professionals on part-time internships and independent study projects, and in two courses, the Core course, *Negotiating the Art World*, and an elective special topics seminar or studio course. Possible internship placements include in an artist's studio; in a museum or gallery; with a theatre or dance company; with an orchestra or presenting venue; with a magazine or newspaper and more. Not limited to arts majors, the program benefits all students who have strong interests in the arts.

Chicago Urban Semester. Through the College of Arts and Sciences and with the cooperation of the Associated Colleges of the Midwest, the University offers to all students a one semester program involving residence in Chicago. This program offers students 16 credit hours of instruction including closely supervised internships and independent study projects. Through the course work, students learn the magnitude and complexity of an urban environment by analyzing and experiencing the political, social, economic and cultural forces shaping a city. For descriptions of courses and grading policies refer to page 242.

Sophomores, juniors and seniors are eligible to participate. The program is offered both fall and spring semesters.

Valparaiso students register at Valparaiso University for the Chicago Urban Semester and pay to this University the tuition and general fee. There is an additional fee for this program which is determined annually by the Associated Colleges of the Midwest. Expenses for travel and meals are paid directly by the students. Chicago Urban Semester courses are accepted for full credit toward graduation from Valparaiso University.

Cooperative Education Program. Cooperative education is an academic

program which combines professional work experience with academic coursework. Paid employment occurs in business, industry, government, or other professional settings. The Cooperative Education experience is available in the Colleges of Arts and Sciences (page 56), Business Administration (page 196), Engineering (page 212), and Nursing (page 232).

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, in the College of Business Administration, and in the College of Engineering. 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 a 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 the context of professional education.

Guidelines for courses with a service learning component are as follows:

1. Courses should contain the equivalent of one to two hours per week of the service-learning component.
2. A reasonable variety of service agency placements should be provided for each course.
3. Any given course may contain a service-learning component; these courses will be designated as such in the current course schedule.
4. Students may be required to use their personal vehicles for travel to off-campus service sites. If off-campus work is required, students will sign a liability waiver.

Honors Work and Independent Study. The University encourages honors work and independent study. Each college has its own approach to this form of instruction. Information should be sought from deans or department chairs. Especially interesting is an opportunity for a group of students to develop a topic or area of studies to be approached as a group under the sponsorship of a faculty member. This independent group study program is administered through the Dean of the College of Arts and Sciences but is open to all students. More detailed information is given on pages 54-55.

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 189-193.

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 249.

Special Course, Program and Activities Requirements

Some University courses, programs or activities require students to travel to locations off campus. When the University does not provide the transportation, or when it does and the student elects not to use it, the student is solely responsible for making his or her own safe and responsible travel plans.

Some University courses, programs or activities also involve internship, practicums, student teaching and the like with third parties outside of the University. Some of these third parties, such as school districts or private sector employers, may require criminal, or similar background checks of the students. Each student must comply with these requests if he or she is to participate in the course, program or activity.

Lectures

Valparaiso University presents numerous lectures by scholars and public figures on topics of scholarly or current 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.

The Janet Lynn Kerr Memorial Lectureship in Asian Studies is an annual lecture made possible by the family, friends, and colleagues of Professor Kerr, a Christ College faculty member from 1991 until her death in 1999.

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 at Valparaiso University by 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 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.

The Arnold Moeller College of Business Administration Endowment Lecture was established in 1989. The fund supports faculty research and development with the Business College.

The Warren Rubel Lectures Endowed Fund was established in 1992 by alumni and friends of Christ College to honor Professor Rubel's service to the University and Christ College.

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.

Tabor Law Lectureship in Ethics, established by Mr. & Mrs. Glenn J. Tabor to provide funds for a law lectureship with emphasis on ethics.

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.

The Zahn Award and Lectureship Fund was established in 1971 by Irene Zahn in memory of her parents. The fund is to be used to provide for a scholarship for an art student and also provide for art lectures.

The annual Louis E. and Janice M. Zeile Lecture on Christian Vocation honors Valparaiso University graduates Louis E. Zeile (1950) and Janice M. (Kolterman) Zeile (1949). The lecture was established by their children and their spouses at the time of their parents 50th wedding anniversary.

Endowed Chairs and Professorships

Richard P. Baepler 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. Baepler 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 Paul and Cleo Brandt Professorship of Engineering was established by Paul H. Brandt to promote excellence in teaching in the College of Engineering.

The W.C. Dickmeyer Professorship in Christian Education was established by the family and friends of W.C. Dickmeyer, who was instrumental in the purchase of the University by a group of Lutheran clergy and laymen and who served on the Board of Directors of the University for more than 40 years.

The Phyllis and Richard Duesenberg Chair in Christian Ethics is a University Professorship established by Phyllis and Richard Duesenberg to explore, research, write and teach the ethical implications of contemporary social issues from the Biblical perspective and the perspective of Lutheran Symbolic Writings.

The Phyllis and Richard Duesenberg Chair in Christianity and the Arts in Christ College supports the research and writing of a scholar of national stature engaged in the study of religion and art.

The Phyllis and Richard Duesenberg Chair in Law, recognizes and supports the work of a proven and productive scholar of national reputation and a teacher of demonstrated excellence.

The Phyllis and Richard Duesenberg Chair in Lutheran Music supports the teaching and study of a faculty member whose efforts focus on Lutheran music.

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 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 Erich H. Markel Chair in German Studies was established by the Max Kade Foundation in memory of the President of the Foundation from 1959 to 1999. The Markel Chair supports the teaching and research of a faculty member in the field of history whose work focuses on an understanding and appreciation of German culture.

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

The Louis S. and Mary L. Morgal Endowed Chair of Christian Business Ethics was established by Louis S. and Mary L. Morgal, with additional support from Proctor and Gamble, Inc., to promote the understanding and practice of Christian business ethics by students, faculty, and the business community.

The Surjit S. Patheja, M.D., Chair in World Religions and Ethics was established by Surjit S. Patheja, M.D., to promote appreciation of world religions, religious tolerance and world peace.

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.

The Alfred W. Sieving Chair of Engineering was established by a gift from Esther C. Sieving and Frances H. Sieving to honor their brother, Alfred W. Sieving, and to advanced the College of Engineering.

Special Academic Endowments

The Carl and Isabelle Brauer Business Ethics 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. Huegeli Library Fund. This fund was established by friends to honor the former President of the University.

Kapfer Research Award. This endowment, established by the Kapfer family, gives research support to a faculty member in the College of Arts and Sciences.

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.

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The Library Humanities Fund. 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 Michael and Dianne Swygert Research Fellow. Awarded to a faculty member or librarian who, through his or her scholarship, lecturing, written work, and contribution to the advancement of knowledge, exemplifies the highest standards.

The Michael and Dianne Swygert Teaching Fellow. Awarded to a faculty member or librarian who, through his or her teaching and service to students, exemplifies the highest standards of teaching and service.

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

INTERNATIONAL STUDY PROGRAMS

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.

The University sponsors thirteen programs abroad, two of which (Cambridge and Reutlingen) are exclusively Valparaiso University programs; the other eleven (Cergy, Tübingen, Puebla, two programs in Paris, Hangzhou, Japan, Anglia Ruskin University in Cambridge, *College Year in Athens*, Namibia, and Granada, Spain) are offered in conjunction with host-institution programs. Students considering study abroad should consult the Director of International Programs as well as their academic advisor early in their academic program, to ensure the coherence and continuity of that program.

Most financial aid that students receive while attending Valparaiso University may be applied to the thirteen Valparaiso University-sponsored programs. Exceptions may include on-campus employment, and some

music and athletic scholarships. Please inquire in the Office of International Programs for more specific information. 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 should apply two semesters in advance of the semester in which they plan to participate. The deadline for most applications is the sixth week of each semester, and selections take place in the seventh week. Applications may be submitted through the sixth week of the semester immediately preceding the semester abroad, if spots are still available.

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, Granada, Anglia, and Cergy programs, which require 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 advisor 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, Social Analysis, and Theology. Participation in any Valparaiso University study-abroad program fulfills the Cultural Diversity Requirement.

For the programs in Cambridge, Reutlingen, Puebla, and Hangzhou, students pay regular tuition, the general fee, the double-room fee, and a study-center fee, if applicable (see page 270). For the other programs, students should check with the Director of International Programs concerning payment procedures.

In most cases, the Office of International Programs handles the round-trip flight arrangements, but students pay the travel agent directly.

Students who choose to participate in programs sponsored by different institutions, at their own expense, should consult with the Director of International Programs. When students decide on a program, it is necessary to obtain the prior approval of an academic advisor, the Director of International Programs, and the Dean of the College in order to assure in advance that the credit for courses taken abroad will transfer to Valparaiso University. The Registrar's Office provides a form for this as well as a form which enables students to apply for a leave of absence from the University for the specified time period.

Athens, Greece

Valparaiso University has a study-abroad option in Greece through the *College Year in Athens* program. *College Year in Athens* is an independent study-abroad program offering college-level courses in Ancient Greek Civilization. Enjoying an excellent reputation among North American colleges, *College Year in Athens* enrolls approximately one hundred students per semester.

Program Requirements. Students in good academic standing with at least 16 credits of Greek or eight credits of Greek and nine credits of classical civilization courses are eligible to apply. The junior year, however, is the best time for most students to leave the home campus for study abroad.

Program Curriculum. Students choose from a wide variety of courses dealing with the classical world. These courses, which represent such disciplines as Archaeology and Art, Classical Languages and Literature, 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 eighteen 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 a class at nearby Anglia Ruskin University by special arrangement. One long break provides two full weeks of time for independent travel.

Program Requirements. Sophomore standing and a grade point average of 3.0 are required.

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

The first three courses are taught by British faculty, the other two by the resident director.

ART	311	Art Appreciation	3 Cr.
HIST	351	English History and Culture	3 Cr.
GS	390	Topics in English Life and Culture	3 Cr.
SOC	390	America and Americans through British Eyes	3 Cr.
THEO	490	History of Early Christian Centuries	3 Cr.

Courses may apply toward fulfillment of the following General Education Requirements- Humanities: Fine Art (ART 311 or GS 390), Social Science, and Theology.

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

Anglia Ruskin University. A one-on-one exchange agreement makes it possible for Valparaiso University students to study for a semester or a full year at Anglia Ruskin University in Cambridge. Students pay tuition and General Fee to Valparaiso University, and pay room and board costs in Cambridge.

Program Requirements. Junior standing with a grade point average of 3.00 and approval from the Director of International Programs are required.

Program Curriculum. Students can select courses from the full range of undergraduate programs in Liberal Arts, Science, and Business. For additional information, contact the Director of International Programs.

Granada, Spain

In cooperation with Central College in Pella, Iowa, Valparaiso University offers the opportunity to a limited number of students to study at the Center for Modern Languages at the University of Granada in Spain. The semester begins with a three-week orientation program. This program is designed to improve students' oral and written skills, as well as to introduce them to Spanish daily life. At the end of this orientation program, a placement test is given to determine the students' level of Spanish: Intermediate, Accelerated, Honors, or Superior.

Program Requirements. Spanish 204 and at least one additional 200-level Spanish course, junior standing, a grade point average of 3.00 (both overall and in Spanish courses), and approval by the Spanish faculty are required.

Program Curriculum. After successful completion of the two-week orientation program, students may take courses from general categories including the following: Spanish Business, Spanish Civilization and Culture, Contemporary Spanish Economics, History, Regional Geography, Spanish Literature and Language. It is also possible to arrange a service-learning opportunity for two credit hours. All courses are conducted

in Spanish and students usually enroll for 12-15 credit hours.

This program is available for the fall semester or for the full-year, but NOT for the spring semester.

Hangzhou, China

The city of Hangzhou is well renowned for its cultural history, its tea and silk production, and according to Chinese tradition, for being a paradise on earth. Zhejiang 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, while having the opportunity to experience facets of Chinese culture through tours, lectures (in English), and demonstration classes of such arts as calligraphy and taiqi 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 Chinese and Japanese Studies and other departments. Classes are conducted from early September to mid-December, allowing for periods of travel.

Program Requirements. Sophomore standing and a grade point average of 3.0 are required, but there is no prior Chinese language requirement.

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

EAST 109 Intensive Elementary Chinese	5 Cr.
EAST 110 Intensive Elementary Chinese: Conversation	5 Cr.
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.

One additional course is offered by the resident director in his or her field of expertise.

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EAST 109 and 110 are for students with no prior knowledge of Chinese and must be taken concurrently. Students may take both EAST 109 (Reading/Writing) and EAST 110 (Conversation) for credit, or they may take EAST 109 for credit and audit EAST 110. 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 Chinese and Japanese Studies. EAST 109, EAST 110, EAST 209, and EAST 210 may apply toward the General Education Foreign Language Requirement. EAST 395 will satisfy the Humanities: Fine Art or the Cultural Diversity course General Education Requirements.

This program is available in the fall semester only.

Japan

Valparaiso University has an exciting exchange program with Kansai Gaidai University, located in the culturally rich area between Osaka and Kyoto. The program offers Japanese language instruction and a number of East 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, tuition, and general fee to Valparaiso University. The program is available fall and/or spring semesters.

Program Requirements. A grade point average of 3.00 and sophomore standing are required. Two semesters of college Japanese are recommended but not required. References from academic advisors and professors are also needed, as well as permission from the Director of International Programs. 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.

Courses taken in Japan may apply toward certain General Education Requirements, or

fulfill major and/or minor requirements in Chinese and Japanese Studies, International Economics and Cultural Affairs, or Japanese. The course offerings vary from semester to semester, so students must consult with their academic advisors and the appropriate bulletins 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, as well as with families in Soweto, South Africa; in Windhoek, Namibia; and in a rural Namibian community.

Program Requirements. Sophomores, juniors, and seniors with a grade point average of 3.0 are eligible to apply. Enrollment is limited to twenty students each semester, drawn from colleges and universities throughout the United States.

Program Curriculum. The theme for both semesters is *Nation Building, Globalization, and Decolonizing the Mind: Southern African Perspectives*, and the offerings include courses in the following disciplines: political science, religion, interdisciplinary studies, and sociology. An internship is also possible. 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.

A limited number of Valparaiso University students may study in Namibia either semester.

Cergy–Pontoise, France

Valparaiso University has a new exchange program with l'université de Cergy-Pontoise, located northwest of Paris, on the Seine, just 40 minutes by rail from the heart of Paris. Pontoise was a favorite painting site for the Impressionist painters. Cergy is a university of 12,000 students, which was founded in 1991. Cergy students come to Valparaiso University in the fall and Valparaiso University students go to Cergy in the spring. They are housed in one of several residence halls near campus.

Program requirements. French 204 or the equivalent, junior standing, a grade point average of 3.0 or better, and approval of the French section are required.

Program Curriculum. Students take 9 credits of French-as-second-language courses (oral, written, grammar) at the appropriate level, and two courses in French civilization, politics, history, or other disciplines. All courses are considered Valparaiso University credits and count toward the French major or minor, General Education requirements, or as electives.

This program is available in the spring semester only.

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 civilization. Students enroll at either the Sorbonne or the Institut Catholique where the medium of instruction in all classes is French. The academic environment in France is quite formal. Courses offered at the Sorbonne (with the exception of the speaking and grammar courses) are large lecture format with grades based on one final essay exam. Lecture courses at the Institut Catholique are similar in style to those on a liberal arts college or university campus in the United States. Advanced Program students at the Sorbonne may also enroll in the Business Program, which allows students to prepare for the certificate 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. All students participate in an exciting four-week intensive French language and orientation program at the Institut de Touraine in Tours prior to taking the placement exams and beginning their classes at the Cours de Civilisation Française at the Sorbonne (Université de Paris) or at the Institut Catholique in Paris. Based on these exams, Valparaiso University students are placed into one of the following

levels consistent with their major:

Intermediate Level—at the Sorbonne (full year or spring semester) or at the Institut Catholique (fall, spring, or full year). Seven to eight credits of French conversation, grammar, and phonetics plus seven to eight credits of French civilization, literature, history, and/or culture.

Advanced Level—at the Sorbonne (full year or spring semester) or at the Institut Catholique (fall, spring, or full year). Seven to eight credits of advanced language study, plus six to eight credits of French art, history, literature, economics, philosophy, politics, and/or culture.

Superior Level/Business—at the Sorbonne (spring only). A program in French business language, administration, and economics. Students earn the *diplôme supérieur de français des affaires*. Eighteen credits.

Superior Level/Literature—at the Sorbonne or at the Institut Catholique (spring only). Specialized course offerings for superior students who wish to concentrate on French language, literature, and civilization. Eighteen credits.

Central College seminars and Sorbonne/ Institut Catholique courses vary from year to year, but are generally available in the following fields: Art Appreciation, French Literature, History, Geography, Music, Philosophy and Political Science. It is also possible to arrange a service-learning opportunity or an internship after the placement exams at the Sorbonne or the Institut Catholique. Courses are two credits each.

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

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

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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 a one-week orientation and seven 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 one of the following areas: Advertising and Public Relations; the Arts; Business and Economics; Film and Television; Health and Human Services; Hospitality Administration; Journalism; and Politics. Past internships have included Galerie Maeght, Antenne 2 Télévision, l'Office de Tourisme de Paris, and le Ministère des Affaires Étrangères.

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

Puebla, Mexico

Valparaiso University has an exchange agreement with the Universidad de las Americas-Puebla, which is located in Cholula, a short bus ride from Puebla. Valparaiso University students may study there in the spring semester. They live with Mexican suitemates in on-campus residence halls.

Program Requirements. Spanish 203, at least sophomore standing, and a grade point average of 3.0 or better are required.

Program Curriculum. Based on a placement exam, students enroll in Spanish language, literature, business, and civilization courses for international students, offered at the beginning, intermediate, and advanced levels. Students with solid language skills may enroll in one or more courses from the regular curriculum for Mexican students. Past offerings taught in Spanish include courses in Art, Psychology, and Political Science. Courses taught in English have included the areas of Economics and Political Science.

Courses may apply toward the Spanish major or minor, or toward certain General

Education Requirements, including Social Science, Humanities: Fine Art, Foreign Language and/or Cultural Diversity course.

This program is available in spring semester only.

Reutlingen, Germany

The Reutlingen Study Center, located on the campus of its partner institution, the Hochschule Reutlingen, 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. Except for the German language courses (beginning or advanced), all courses are conducted in English. Several field trips as well as the students' own travel experiences complement the in-class learning and encourage the development of broad new perspectives. Internship opportunities with German professionals are also a possibility for students with good German language skills.

Program Requirements. Sophomore standing with a grade point average of 3.0 is required; no prior knowledge of German is required.

Program Curriculum. Courses offered include:

ART 311 European Art and Architecture	3 Cr.
ECON 290 Topics in Economics	3 Cr.
FLGR 101 First Semester German	4 Cr.
FLGR 204 German Composition and Conversation	4 Cr.
GS 390 Topics in German Life and Culture	3 Cr.
THEO 322/HIST 390 Luther and Bach	3 Cr.

FLGR 101 and FLGR 204 may apply toward the General Education Foreign Language Requirement. FLGR 204 may apply toward a German major or minor or International Economics and Cultural Affairs major. Other courses may be used to fulfill General Education Requirements as follows: ART 311 will fulfill the Humanities: Fine Art requirement; ECON 290 may be used to fulfill one of the Social Science course requirements; THEO 320/HIST 390 may be used to fulfill all upper level theology course or the HIST/PHIL requirement.

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

Tübingen, Germany

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

Program Requirements. German 204 or the equivalent, junior standing, a grade point average of 3.0 or better, and approval of the German section are required.

Program Curriculum. The Language and Orientation Program, a six-week intensive course before the beginning of the German academic year, is conducted by the University of Tübingen for foreign students. During the academic year, students may choose courses from among the varying offerings of the University of Tübingen.

The six-week Language and Orientation Program allows students to earn three elective credits towards the German major or minor requirements. Other courses may apply toward certain General Education and/or major or minor requirements; students must consult with relevant department chairs before departure for Tübingen.

This program is available for the full academic year only.

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 through Greek 495 (Independent Study). Students must consult with the chair of the Department of Foreign Languages and Literatures.

This program is available in the summer only, from late June to early August.

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

University Library Facilities

The new Christopher Center for Library and Information Resources has an important place in student academic achievement. It is home to all University Library Services (except Law), the instructional and user support elements of Information Technology, and the campus Writing Center. At 105,000 square feet, it provides a comfortable atmosphere for research, inquiry, discussion, and study. With more than 200 public computers, three fireplace lounges, a gourmet coffee café, dozens of group study spaces, and a beautiful 4th floor outdoor terrace, students will find the Christopher Center to be a modern, state-of-the-art campus facility to meet their every need. It can hold a total of 600,000 library volumes, both on open bookshelves throughout the Center and in its robotic high-density storage and retrieval system.

Being information literate means that students know how to identify, locate, and evaluate information in today's complex environment of electronic, print, video, and audio media. Students can turn to the Christopher Center to reach a level of

independence in finding resources and in understanding the mechanics of information, utilizing computers for retrieval, and reading, interpreting, and writing citations. They learn information-seeking skills, including how to articulate their research needs. Most importantly, students learn how to evaluate information, find different viewpoints, and recognize the biases of any author. The library gives customized assistance to enable students to research any question and fulfill their information needs. It also provides course-specific assignment-based information literacy instruction in collaboration with each academic college.

Library services play an important role in scholarly communication by organizing print and electronic information for easy retrieval. An on-line public catalog of its holdings called Galileo is searchable in a variety of ways. Galileo is accessible throughout the world via the Library Services Home Page <<http://www.valpo.edu/library>>. The holdings in Galileo include books, periodicals, government publications, videos, audiocassettes, and musical compact discs. The Christopher Center holds the Moellering Collection, which is comprised of more than

300,000 volumes, adding approximately 9,000 new volumes each year. Students may view their circulation records electronically and renew books borrowed electronically via Galileo. Some periodicals and many government publications are accessible in microformat. The library's collection in microforms includes more than one million units.

The Library Services Home Page offers direct access to a rich menu of electronic databases, many with the full text of articles retrieved through topical searches, to provide ready access to scholarly information across the academic disciplines. Students may send the text of articles retrieved to their e-mail boxes for later printing. When articles retrieved are found in one of more than 1500 print periodicals subscribed to by the library, students may make photocopies on one of the photocopy machines located on each floor of the Christopher Center. They may request interlibrary loan service for articles that are not held locally. An electronic interlibrary loan form is accessible from the home page to streamline the process. The average turnaround time for interlibrary loan requests is seven working days. The library is a member of several consortia, including Academic Libraries of Indiana and the Center for Research Libraries, to give scholars access to such materials.

The Law Library at Wesemann Hall holds a collection of 146,000 bound volumes and 749,500 microforms, with 3,258 current periodical subscriptions. LEXIS and WESTLAW subscriptions add to the rich information resources available for use by Valparaiso University students and scholars. The Christopher Center 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 continuously evaluated for selection, acquisition, and organization to support the mission of the University.

Information Technology (IT)

Information Technology services coordinates and manages servers; data networks (wired and wireless) including

Internet access; communication resources including electronic mail, voice mail, telephone service, video cable, and satellite reception resources; general-access computing facilities; and general-purpose software related to the academic and administrative functions of the University.

Valparaiso University's dynamic information environment provides support for excellent teaching and learning, quality research, effective decision-making, efficient administration, and open communication among the members of the University community.

Computer Network Access.

Residence hall rooms, faculty and staff offices, all general purpose computer clusters, classrooms and laboratories, and many special-purpose computer clusters are connected to the Valparaiso University Network via wired or limited wireless access. This network provides access to the Internet, electronic mail, USENet News, library resources, and a variety of software. For those living off campus or away from campus on internships or trips, most resources on the University network, including individual and shared storage space, are accessible via other Internet domains, including commercial Internet Service Providers. Limited dial-up facilities are available for emergency access from off campus when a person's commercial Internet Service Provider is unavailable.

Computer Access for Students.

Most residence halls have a computer site open around the clock for residents. All residence hall rooms have a network connection for each resident, allowing those who bring their own computers to connect to the campus network (computers may not be able to access some resources if they are not Novell Tested and Approved). Each residence hall is assigned at least one Technology Assistant who maintains the local computer site and assists students. The computer site in the Union is available 24 hours per day during the fall and spring semesters for all members of the Valparaiso University community. Many computer facilities in the Christopher Center for Library and Information Resources are available for general use.

The Christopher Center has a variety of electronic sources of information, including on-line public access catalog, databases, and

Facilities for Learning

references to useful web sites. Patrons may view their circulation records on-line and renew books electronically. Computer clusters provide network access for the full range of academic activities.

Adaptive Technology workstations are available in several locations including the Christopher Center and the Union, for the visually- or aurally- impaired members of the University community.

With few exceptions, students may use Valparaiso University computing resources without direct charge.

Features and Functions. General applications supported include electronic mail, web browser, anti-virus, word processing, spreadsheet, database, desktop publishing, a course management system, web page editing, statistics, and presentation graphics. Many departments have discipline-specific applications on the network or in departmental computing clusters.

Assistance with Resources. The IT Help Desk, located on the first floor of the Christopher Center, is managed by professional staff and student consultants who will answer technology-related questions and route service requests to technical staff.

IT offers free enrichment courses in specific applications, web resources, electronic mail, and basic computer skills throughout the year.

Students and faculty will find much useful information in the Technology Resources Guide distributed jointly by the Library and IT each fall; in the IT newsletter *Bits & Bytes*; and in the weekly electronic mail newsletter, ITNews.

The Valparaiso University Network. UNIX servers handle electronic mail, web pages, USENet News, administrative data, and many other functions. Shared file space, some library functions, general productivity software, and programs for over 135 discipline-specific applications are handled by Novell servers.

Internet Service is provided by Indiana Higher Education Telecommunication System with a 45 million bit-per-second circuit. The campus backbone network is fiber optic, currently running 100 megabits (Mbps) per second or 1 gigabit per second Ethernet. Intra-building networks are 10 Mbps switched Ethernet or Ethernet. Internet bandwidth is managed to ensure proper flow of academic and administrative traffic.

Planning. An ongoing strategic planning process, involving students, faculty, and staff, helps apprise the University of technological developments and ensures consideration of budget requests for technology.

HONORS AND AWARDS

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.

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 3.40 in their work at this institution are graduated Cum Laude.

Semester Honors

Undergraduate students who achieve a standing of 3.50 in any semester 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 completed at least fourteen credit hours of work for that semester on campus or at least twelve credit hours in an International Studies Semester, Special Off-Campus Semester or any other approved cooperating program.

Christ College. Graduates who complete the requirements of the honors college, Christ College, are designated Christ College Scholars or Christ College Associates.

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 54.

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.

Honors and Awards

NATIONAL SENIOR HONOR SOCIETY

Phi Beta Kappa. 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 premedical or pre dental program.

Alpha Sigma Lambda. This national honor society is devoted to the advancement of scholarship and to the recognition of students in continuing higher education programs.

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 international 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 fall of the senior 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

Education - Kappa Delta Pi
English - Sigma Tau Delta
French - Pi Delta Phi
Geography - Gamma Theta Upsilon
German - Delta Phi Alpha
History - Phi Alpha Theta
Journalism - Society of Collegiate Journalists
Marketing - Alpha Mu Alpha
Meteorology - Chi Epsilon Pi
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.

The Bluemel Award. Awarded to a College of Nursing graduating senior who demonstrates determination, perseverance, a sense of humor, a desire to elevate the standards of nursing, recognition of the importance of the role of the nurse in prevention of illness, and a concern for human worth and dignity, regardless of race, creed, or culture.

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

The Donnelley Prize. The Donnelley Prize annually rewards the best student essays on humankind's relationship to the environment with a cash award of \$750 and support for summer internships or research in environmental issues, particularly in the Chicago region. Environmental and biomedical ethicist Strachan Donnelley, Ph.D., a former Christ College faculty member and Vivian Donnelley, a Valpo alumna, endowed the prize.

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 Guillaumant 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 Guillaumant and her husband, Roger.

The Patterson MacLean Friedrich Scholarship. The Friedrich Scholarship is awarded annually to the outstanding junior student majoring in French at Valparaiso University.

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.

Indiana CPA Society Award. Awarded to the outstanding senior accounting student in the College of Business Administration.

Indiana Medical Association of Northwest Indiana Scholarship in Nursing. This award is presented to a student entering the senior year who is selected by the Dean of Nursing. The student must have resided in Northwest Indiana prior to admittance into Valparaiso University and plan on practicing in Northwest Indiana after graduation.

Walther M. Miller Memorial Prize. The Miller Prize is awarded annually to the senior 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.

Thora Moulton Prize. The Moulton Prize is awarded annually to the outstanding junior student in German studies and is awarded in honor of Professor Emerita Thora Moulton.

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.

The Dorothy Paulsen Smith Award. Awarded to a College of Nursing graduating senior whose quest for excellence has reflected the spirit of the College of Nursing. Criteria for choice include demonstrated scholarship and leadership, openness and enthusiasm, energy and creativity, empathy and compassion.

The Donna Spanopoulos Memorial Scholarship in Pediatric Nursing. This award is presented by the Spanopoulos family each spring to a student entering the senior year, in memory of the founder of Infant and Child Special Care, Valparaiso, now part of Children's Memorial Hospital. The \$1,000 award was established to encourage interest in the practice of pediatric nursing. The student must demonstrate academic and clinical excellence in the nursing care of children and an expressed interest in specializing in pediatric nursing.

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

The Wall Street Journal Award. Awarded to the outstanding senior business administration student in the College of Business Administration.

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

Student Residences

The majority of undergraduate students live in one of the eleven university residence halls and apartment buildings or in one of the eight fraternity houses located on or near the campus.

Alumni, Brandt, Lankenau, and Wehrenberg Halls are residence halls with rooms for two students. All are coed halls with men and women living on alternate floors. Guild and Memorial Halls offer rooms for two, three, and four students. Guild Hall houses all women, while Memorial Hall is coed. The two buildings share a main entrance and large public area on the first floor. 807 Mound provides triple-occupancy rooms in a two-room suite layout. The hall is

coed by floor. Scheele Hall is divided into individualized areas to provide accommodations for sororities and other upperclass women. Each hall has its own student council and peer judicial board. In addition, Compass Pointe Apartments provide apartment-style living options for upperclass students. And, the Kade-Duesenberg German House and Cultural Center offers students the opportunity to live in a German language house.

Two dining halls and the Valparaiso Union provide food services.

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 to University Life*.

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 Vice President for Student Affairs on the recommendation of the Campus Judicial Board.

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 that they understand the Honor System and are aware that all of their academic work must be submitted under their signature and that they have done this work in agreement with the Honor Code. The statement "I have neither given or received nor have I tolerated others' use of unauthorized aid" must be written out and signed on all written work.

Under the Honor System, all written examinations of any length are taken in an atmosphere free from the surveillance of a proctor, unless requested by a student member of the class. Every student has the responsibility to keep academic work free of dishonesty; that is, neither to give nor to receive unauthorized aid. All students must report to the Honor Council any violation of the System of which they become aware. Students are required to sign a pledge on all work submitted for academic credit as indicated above.

The Honor Council is an educational, preventive, remedial and judicial body with the duty of maintaining the Honor System in the academic community. The Council hears Honor Code cases and then makes decisions about whether or not a student has violated the code and assesses any penalties. The Council is composed of students and faculty who are chosen by the incumbent members subject to the approval of the President of the University.

The Arts

The mission of the program in the visual and performing arts at Valparaiso University is to educate the minds of students by opening their eyes and ears to the best of their artistic heritage and the joy of artistic 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 make 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 perform in selective ensembles may audition for the Valparaiso University Chorale, the University Symphony Orchestra, the Kantorei, and the Concert Band, as well as a variety of chamber ensembles including Woodwind Quintet, String Quartet, Percussion Ensemble, Brass Ensemble, and others. Other auditioned ensembles include: University Singers, Luce Band, and Jazz Band. The University-Community Band is open to all students with no audition required. Additional student-organized performing groups include Crusader Band, Handbell Choir, and Matins Choir. For an additional charge, a limited number of students may enroll in private music lessons in voice, piano, guitar, organ, and most orchestral and band instruments.

Theatre. The University Theatre brings the best of classic drama, new plays, musicals, and operas to the Valparaiso University Center for the Arts. Soul Purpose, a touring liturgical drama troupe, travels to churches throughout the nation, and Theatre Outreach Performances (TOP) performs plays on social issues for local and regional schools, colleges, and social service organizations. Theatre opportunities are available for any student interested in dramatic arts. Theatre work is focused in

the areas of performance, production, and management. Advanced students regularly supervise in all areas.

Art. The Art Department offers basic studio courses in painting, drawing, digital art, design, graphic design, sculpture, photography, ceramics, art education and art history. Student and faculty work, as well as the work of other distinguished artists, is exhibited in the Brauer Museum of Art, in the Strimbu Gallery on the second floor of the Center for the Arts and in the second floor hallway gallery at the Christopher Center for Library and Information Services. The Brauer Museum collection holds over 2,000 works of art featuring at its core the Sloan Collection of American Painting. Art students have opportunities to develop publishing and production skills by working with the *Lighter*, the *Torch* and other campus publications. Summer programs of study in Europe or Asia are also available to provide students with immediate experience of diverse cultural heritages.

Dance at Valparaiso University. Through learning and participating in dance, students are able to reflect on the ways dance is part of the human experience and part of their own lives. Each semester students may choose from two different dance courses offered through the Department of Theatre. Styles covered are ballet, tap, jazz, and modern. In addition to these standard technique courses, a specialized dance course is offered every other year. Topics covered in these courses may include dance improvisation, musical theatre styles, or another topic that relates directly to an upcoming theatre department production.

University Dance Ensemble. Under the leadership of Department of Theatre faculty, the University Dance Ensemble meets regularly throughout the academic year for technique classes and choreography. All university students are welcome to join. Academic credit can be given for those students choreographing or performing in the annual Concert of Dance. The University Dance Ensemble regularly invites dancers from the surrounding northwest Indiana community to perform with the ensemble as part of its mission to make dance a more visible part of the community.

There are numerous performance opportunities for interested dancers and student choreographers. Past performances have included the opening of the Center for the Arts, museum openings, Advent Vespers services, liturgical dance at area churches, Department of Theatre productions, Festival of Dance (Fall Semester), as well as the annual Concert of Dance (Spring Semester). The spring concert highlights the work of faculty, student, and guest choreographers.

Auditions for this concert are held at the beginning of the fall semester.

Creative and Professional Writing. The English Department offers majors in creative and professional writing. The department sponsors the Margot Ann Uehling Scholarship, awarded annually for the best essay written by a Valparaiso University student. WORDFEST annually brings established writers to campus and awards prizes to Valparaiso University students for fiction, poetry, and nonfiction prose. The *Cresset* internship provides experience in editing and publishing. *The Lighter*, a campus literary magazine, presents student work in award-winning form.

Athletics

Valparaiso University provides a varied athletics program that 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, all-purpose intramural fields, 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.

Recreational Sports/Intramurals. Valparaiso University is committed to a comprehensive program of recreational sports. A wide variety of team and individual sports are scheduled 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. Women's sports offered are: basketball, cross country, soccer, softball, swimming, tennis, indoor and outdoor track and volleyball. Membership is maintained in the National Collegiate Athletic Association. The women's teams participate in the Horizon League.

Men's sports offered are: football, basketball, baseball, soccer, cross country, swimming, tennis and indoor and outdoor track. Membership is maintained in the National Collegiate Athletic Association. The men's teams participate in the Horizon League 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 graphic design, editorial work, and is open to students from all academic disciplines.

The Lighter. The Lighter, a student literary magazine, is published twice a year and welcomes contributions from all members of the University student 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 the experience of on-air work, management, sports broadcasting, news and weathercasting, and various production work.

Organizations

Student Senate. The Student Senate is empowered by the Instrument for Internal Governance of the University with executive, legislative and judicial powers over the

student body. 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 is responsible for making recommendations regarding residence hall policies, procedures, and programs.

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 interaction and improve student life.

Fraternities and Sororities

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

National Greek-letter social and philanthropic sororities include Chi Omega, Delta Delta Delta, Gamma Phi Beta, Kappa Delta, Kappa Kappa Gamma, and Pi Beta Phi.

The governing body of the sororities is the Panhellenic Council. The governing body of the fraternities is the Interfraternity Council.

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 building.

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.

Alpha Phi Omega is a national, co-ed service organization with chapters in approximately 700 institutions of higher education. For over seventy-five years, it has set the standard for college campus-based volunteerism; the Valparaiso University chapter was chartered in 1948. Alpha Phi Omega strives to help each member develop leadership skills, secure lasting friendships, and provide service to others. Membership is open to all students of the University, and in no way interferes with membership in a social fraternity or sorority. For more information, see the APO web site at <<http://www.valpo.edu/student/apo>>.

Asian American Association (AAA). The Asian American Student Association at Valparaiso University was formed to promote awareness of Asian cultures. Events include ethnic food night, Asian Film Fest, cultural celebrations, and forums. The association is open to all students and to those interested in Asian cultures.

Black Student Organization (BSO). The Black Student Organization promotes cultural awareness of African-American culture through various programs and activities and provides avenues for networking and socializing. BSO event highlights include presenting at MLK Day, coordinating field trips, attending regional and national Leadership Conferences, sponsoring BET Comedy Night, planning Black History Month celebrations, and participating in forums and campus committees.

Latinos in Valparaiso for Excellence (LIVE). LIVE's main focus is to promote academic excellence among Hispanic students and to support and cultivate the interest of Hispanic students through forums, socials, and other planned activities. LIVE also promotes programs and activities that encourage an appreciation for and an awareness of the many different Hispanic cultures represented on Valparaiso University's campus. LIVE event highlights

include Hispanic Heritage Month activities, Leadership Conferences, Cinco de Mayo, Hispanic FilmFest, and participating in forums and campus committees.

Valparaiso International Student Association (VISA). VISA sponsors a number of social and cultural events throughout the year aimed at bridging cultural differences. Most notable are the annual international dinner, which features cuisine from around the world and an international talent show, International Education Week, and the international food bazaar. Although VISA serves as the main support group for international students, it welcomes American members. The International Student House 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 Programs

Volunteer Opportunities In Community Engagement. The Volunteer Programs Office (or V.O.I.C.E.) provides a clearinghouse of opportunities for students who wish to volunteer their time in service to the community. Students learn the rewards of volunteering, building self-esteem, assuming social responsibility, developing new friendships, all while providing help to those in need. Students placed by V.O.I.C.E. serve in a variety of positions including tutoring adults, teenagers and children; visiting with the elderly; working with the disabled and mentally challenged; and participating in the Rebuilding Together program. To learn more about Volunteer Programs please call (#6710). The Volunteer Programs webpage is <www.valpo.edu/organization/volprog>.

The Valparaiso Union

The Valparaiso Union, a community center for all 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, Union Board provides films, lectures, concerts, outdoor recreation trips, coffeehouses, special events activities, diversity programs, trips to Chicago, and much, much more. Union Board offers a telephone activities hot line (#5555), which has a prerecorded message listing the latest in campus activities.

The Union staff help plan and present such programs as the Union Jazz Festival, the One Planet, One People Activities Fair, 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. Student Senate, Union Board, and other student organizations have offices, work and meeting space 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 co-curricular 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 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 facilitates the arrangements for numerous summer conferences, camps and workshops. The Union Director's Office also compiles, prints and distributes a monthly Activities Calendar, and Cultural Arts Calendars to help inform the campus of activities.

The Union Games Area (The Rack) 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 mountain bikes, tents, backpacks, cross country skis and sleeping bags are available to rent. Union Board offers trips such as skiing, canoeing, camping, whitewater rafting, and backpacking.

The Union also provides a 24-hour lounge, computer lab, commuter student facilities, student organization offices, meeting rooms, and a dining and social activities space called The Round Table. The Valparaiso Union is fully accessible to persons who are physically challenged.

Union AdWorks (copy center) is available to any campus groups to publicize programs and activities. Campus events may be advertised through posters, flyers, buttons, brochures, and table tents. The Union Information Desk provides answers to questions and sells popcorn, candy, gum, sundries, newspapers, tickets for trips and special events. Also available are magazines and newspapers to read during visits to the Union, fax service, lost and found, and telephone directories.

Other Union services include a ride board, cash machines, bulletin boards, art exhibits, e-mail kiosks, televisions, audio/visual services, a coin-op copy machine, and event planning assistance.

Dining Services operates *Jesters*, which provides daily breakfast, lunch and dinner items and a snack shop and FRESHENS Smoothies in *The Round Table*. Dining Services also provides catering services for banquets, luncheons, and receptions.

Visit the Valparaiso University Union web page at: <www.valpo.edu/Union> to learn more about the Union and what it offers.

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 11:15 for Morning Worship Monday through Friday when members of the community may come together for prayer and praise. Pastoral counseling is available at any time.

Students participate in the Kantorei and University Singers, 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 outreach, as well as chapel service groups such as Altar Care, 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. 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. The Chapel Office will assist anyone seeking information regarding worship opportunities at area congregations and their ministry.

Services For Students

Leadership Programs. The staff of the Valparaiso Union and the office of the Dean of Students provide students the opportunity to explore and develop their leadership potential through programs such as the Student Leaders Workshop, The Leadership Experience, and the All Campus Leadership Conference. These experiences allow students to explore the dynamics of effective leadership.

The Office of Multicultural Programs. In collaboration with the campus community, the Office of Multicultural Programs (OMP) provides a variety of support programs and services

designed to address the specific academic, cultural, and social needs of underrepresented groups (African-American, Asian/Pacific Islander, Hispanic/Latino, and Native American students).

OMP develops and implements programs that build collaborative communities, improve human relations, and promote multicultural education and cultural awareness.

The Martin Luther King, Jr. Cultural Center (MLKCC), located next to the School of Law, provides students from different cultures a place to relax, hold meetings or study. At the MLKCC, students may utilize the computer lab, the Neal Multicultural Resource Library, a fully equipped kitchen, and a reception area.

The Office of Multicultural Programs serves as a liaison and provides support to many Valparaiso University organizations and their programs. Student organizations include the Black Law Student Association (BLSA), the Black Student Organization (BSO), Latinos in Valparaiso for Excellence (LIVE), the Hispanic Law Student Association (HLSA), and the Asian American Association (AAA).

Program highlights include the Peer Mentoring Program, Native American Festival, Hearst Scholarship, Book Loan Program, Annual Peace and Justice Symposium, and Study Circles on Race Relations.

The Career Center. The Career Center is a comprehensive career services facility offering a wide array of services to students of all colleges, freshmen through seniors, as well as graduate students. 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 career counseling; cooperative education/internship information and orientation; and job search/employment assistance. Individual resume and cover letter critiquing is available as well as assistance with other job search tasks and career exploration.

On-campus interviews with a variety of employers also occur in the Career Center. Listings of full-time, part-time, internship and summer job opportunities are available, and entry-level opportunities appear in the web-based Job Opportunities Bulletin (J.O.B.). Co-op and internship opportunities are also

posted on the Career Center website. A comprehensive career library comprised of books, graduate school catalogs, and directories assists students in formulating and implementing career and educational plans.

Two weeks of video interviews feature employers who donate a day of their time to assist students with interviewing skills. An annual Etiquette Dinner helps students to polish their social skills for interviewing. Additionally, the Career Center hosts career fairs to help connect Valparaiso University students with employers.

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 website for the Career Center is <www.valpo.edu/career>.

Student Counseling and Development Center. The services provided by the Student Counseling and Development Center emphasize both the prevention and remediation of problems of individuals and groups of the university and are confidential and free of charge. Specifically, the Student Counseling and Development Center offers individual and group counseling sessions for persons with emotional, interpersonal, family, or academic skills problems; psychological testing of personality and personal development; training on a wide variety of topics; a website and resource room; personal development materials; crisis intervention; and consultation services. The center is staffed by psychologists, counselors, social workers, a consulting psychiatrist, and support personnel. 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 Center's Outreach Program includes the provision of presentations, seminars, and workshops on topics related to mental health and wellness.

The Student Counseling and Development Center hours are 8 to 12 and 1 to 5 Monday through Friday. The Center is located on LaPorte Avenue behind Miller Hall and next to LeBien. Appointments can be made in person or by calling 464-5002. The website

for the Center is <www.valpo.edu/scdc> and the e-mail address is Counseling.Center@valpo.edu.

Sexual Assault Awareness and Facilitative Education Office. The Sexual Assault Awareness and Facilitative Education (SAAFE) Office 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 process. All of this occurs within the realm of confidentiality. The SAAFE Office also provides support services to the significant others of the victim, and support services for victims of sexual harassment. The Office offers individual and group counseling related to issues of gender, sexual issues, and relationship issues. The SAAFE Office also provides peer education as a means to broaden awareness of gender, sexual and relationship issues and to aid in the prevention of sexual assault. The SAAFE Office Resource Center contains videos and written materials available to students. All student organizations and campus groups may request a variety of programs ranging from informational to interactive workshops and related subjects. SAAFE Advocates and Peer Educators provide outreach programs for students through a Web page and e-mail, through various campus sponsored programs, and through various events such as a coffee house forum.

To schedule an appointment with SAAFE, please call 464-6860 or stop by between 8 a.m. and 1 p.m. Monday through Thursday. The SAAFE Office is located on the LaPorte Avenue side of Alumni Hall. The website for SAAFE is <www.valpo.edu/saafe/> and the e-mail address is SAAFE.Office@valpo.edu. Emergency access is available 24 hours a day, 7 days a week by calling 464-6789.

Office of Alcohol and Drug Education. The Office of Alcohol and Drug Education (OADE) provides substance abuse prevention efforts on campus through proactive outreach programs to student residences and organizations by means of peer educators and professional staff. It also offers education to at-risk students through the combined efforts of a referral, assessment and group program. A Masters

Student Life

level mental health clinician provides screening and referral services to those experiencing problems with substance abuse, whether those problems lie in themselves or in those close to them.

To schedule an appointment with OADE, please call 464-6820 or stop by between 8 a.m. and 1 p.m. Monday through Thursday. The OADE office is located on the LaPorte Avenue side of Alumni Hall. The website for OADE is <www.valpo.edu/organization/oade/> and the e-mail address is OADE.Office@valpo.edu.

The Valparaiso University Student Health Center. The Student Health Center provides an environment that encourages individual student responsibility for maintaining good health. It provides professional health care through the services of nurse practitioners, registered nurses, and a consulting physician. Confidential services covered by student fees include assessment, some minor laboratory analysis, and treatment of minor illness and injury. Allergy injections, gynecological exams, and some immunizations are provided at the Health Center for a nominal fee. Students with illnesses or injuries that require more extensive treatment are referred to physicians in the community. Students or their parents are expected to pay for the costs of such treatment if it is not covered by the student medical plan.

A basic student medical plan is provided to all full-time undergraduate and full-time law students. The cost is included in the student's general fee, which is paid at the beginning of each semester. Please review the Student Medical Plan brochure for information about services covered under this plan.

To attend Valparaiso University, all full-time students are required to have on file at the Health Center, a completed Valparaiso University Health form. This form requires documentation of completed immunizations and must be signed by a health care professional. Only health records in English or health records accompanied by certified translations into English will be accepted. A student is not considered in compliance with the University until his/her Health form has been reviewed and approved by Health Center staff. A \$50.00 nonrefundable charge will be added to the student's account if the

Health form is not received and approved prior to the start of his/her first semester.

Students who require immunotherapy (allergy injections) can continue their treatment at the Health Center. The student's allergist must complete the Health Center Immunotherapy forms prior to the first injection, and the student must provide the vials. Orders on the allergist's stationary are not acceptable. Students who plan to take advantage of this program should contact the Health Center for further instructions.

The Health Center is located at 1406 LaPorte Avenue, just west of Scheele Hall and north of the tennis courts. The Student Health Center is open from 8:00 a.m. to noon and 1:00 p.m. to 4:30 p.m. Monday through Friday when undergraduate classes are in session. Contact the Health Center by phone (219) 464-5060, fax (219) 464-5410, or e-mail Health.Center@valpo.edu. In case of emergency, when the Health Center is closed, students may use the services of the Emergency Room at Porter Memorial Hospital located at 814 LaPorte Avenue.

THE ASK CENTER

Academic Support Keys. The ASK Center provides a referral service to various academic support programs at Valparaiso University and promotes academic success for all undergraduate students. The ASK Center is located in Huegli Hall 132 and the hours are 8:00 a.m. to 5:00 p.m. Monday through Friday. By calling 219/464-5275 (5ASK) referrals can be made for Academic Advising, Disability Support Services, the Writing Center, Tutoring, and VU Strategies.

Tutoring. The ASK Office, located in Huegli Hall (phone 5ASK), supports various levels of tutoring. A semester-by-semester schedule of departmental help/study sessions is one of the services provided.

In addition to publishing the departmental help sessions schedule, the ASK Office supports the following types of tutoring:

1. Work with the professor—It is strongly suggested that the first option for help in a course is for the student to work directly with the professor. Frequently simple problems can be made more understandable with this communication.
2. Study Groups—It is often suggested that students gather in small groups

and work with each other in mastering class problems. This reinforces points from daily lectures and supports good study habits. On occasion the ASK Center will select a leader who has been successful in the course to help the group. This student is selected at the professor's recommendation. The ASK Center also hires a tutor who has satisfactorily completed the course or is a *major* in that discipline, who can lead the study group.

3. One-on-One—In many instances a student will want direct and private tutoring. The ASK Center maintains a list of tutors for various subjects and will arrange for a student to have a tutor. These tutors are students who have completed the course with a satisfactory grade, and/or are *majors* from that discipline.

A student experiencing difficulty in a course should not hesitate to go directly to the professor for assistance. Departmental help sessions are posted in the departmental offices and at various locations around campus. The ASK Center maintains a posting also. Students may start a study group and the ASK Center staff can assist in organizing the group. If a tutor is needed, students should not hesitate to call the ASK Center to get assistance.

All tutoring sessions supported by the ASK Center uphold the standards set by the University's *Honor Code*. It is the student's responsibility to know what is authorized and unauthorized aid.

ACADEMIC ADVISING

One of the benefits of an education at Valparaiso University is the availability of experienced faculty members for personal conferences and 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 advisor 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 an exploratory advisor. As soon as students declare a major, they are assigned to a departmental advisor by the chair of their major department. Students in a

special program are assigned a program advisor. 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 premed, 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 electronically approved by their academic advisor before it is entered on the web. If the student has more than one advisor (e.g., departmental, special program, Christ College), the student should consult with all other advisors; the primary advisor, however, is the only one to sign off electronically. Advisors' approval indicates only that they have counseled the student, not that they approve the schedule. Nor does the advisor's approval guarantee that the schedule will meet the requirements of the student's program. Students should use the program evaluation (degree audit) option on DataVU to track their graduation requirements.

DISABILITY SUPPORT SERVICES

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 accommodations and support.

The student must have met all qualifications for admissions and be officially admitted to the University prior to seeking academic support services provided by Disability Support Services.

Inquiries should be directed to Dr. Sherry DeMik, Director of Disability Support Services, in Miller Hall, Room 126 (464-5456) or by e-mail at Sherry.DeMik@valpo.edu.

The University is committed to meeting its obligation to provide effective auxiliary aid and assistance to students who are disabled. 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 accommodations will

be based upon a case by case analysis of an individual student's need and his/her eligibility under the ADA and Section 504 of the Rehabilitation Act of 1973 and its regulations.

In order to be considered for academic accommodations, the student:

1. May, but is not required to, apply to his/her local Department of Rehabilitation Services Office before attending Valparaiso University, or as soon as is reasonably possible upon diagnosis of a disability, in order to allow time for funding to be allocated. Upon request the University will assist in the application.
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, Disability Support Services in writing before the first day of classes, or as soon as is reasonably possible upon diagnosis of a disability. Such notice is required to determine eligibility and to give the various academic and service areas a reasonable period of time to plan to meet the individual's special needs.

For further information, please refer to Valparaiso University's Disability Support Services website: www.valpo.edu/cas/dss.

THE WRITING CENTER

At the Writing Center, undergraduate or graduate students may discuss writing projects with peer consultants or the professional staff member. Conferences center on planning, revision, editing, and bibliography or citation matters. Help with writing application essays, personal statements, and employment materials is also given.

Confer by drop-in or appointment, Sunday-Friday. Call 464-5216 for conference times that include most weekday hours 9-5 and Sunday-Thursdays evenings. Phone and e-mail conferences are also available. For more detail about appointments and for on-line resources, visit www.valpo.edu/writctr.

The Writing Center's home on the first floor of the Christopher Center for Library and Information Resources places it near the Help Desk for Electronic Information Services, the Media Library, Meadow Reading Room, and the cafe. Its proximity to other services, as well as group study areas, creates a perfect spot for writing.

Core Colleagues. The Writing Center supports the Freshman CORE, the Human Experience, by offering conferences with sophomore consultants. Since the consultants have just completed CORE, they have firsthand experience with the texts and issues students consider as they prepare for class.

International Student Support. Writing consultants work closely with international students and visiting scholars, whether in their first courses on campus, or in the MBA, School of Law, or other graduate work.

VU STRATEGIES

This course is designed for first year students who want to enhance their adjustment to college academic life by strengthening such skills as time management, assertiveness, organization, test-taking, note-taking, determination of learning style and study techniques. It is a seven-week course repeated three times throughout the year. It carries a Satisfactory/Unsatisfactory outcome.

COLLEGE OF ARTS AND SCIENCES

Jon T. Kilpinen, Ph.D., Dean
Stacy E. Maugans, D.Mus., Assistant Dean
John R. Ruff, Ph.D., Director of the Freshman Core

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 OF ARTS DEGREE
(61 CR.)

- A. General Education Requirements 39-40 Cr.
This degree is available only to students enrolled in the College of Adult Scholars.
1. CORE 110 5 Cr.
 2. CORE 115 5 Cr.

College of Arts and Sciences

- 3. THEO 200 3 Cr.
 - 4. Cultural Diversity 11 Cr.
Foreign Language (one) 8 Cr.
Cultural Diversity course 3 Cr.
 - 5. Humanities 6 Cr.
Choose two of the following:
Fine and Performing Arts . . . 3 Cr.
A literature course numbered
200 from English, Foreign
Languages, or Theatre . . . 3 Cr.
A History course 3 Cr.
A Philosophy course (not 150) 3 Cr.
 - 6. Social Sciences 6 Cr.
 - 7. Natural Science (with lab) . . 3-4 Cr.
- College of Adult Scholars students who have completed Level II of a foreign language in high school but have not studied that language for at least 6 full years may be allowed to count credit earned for level 101 toward the foreign language requirements (see pages 105-106). Students opting for a different language from their high school experience begin with course 101 in the new language.
- B. Concentrations 21 Cr.**
Beyond completing the general education requirements, students elect one of the following concentrations. Coursework used to meet general education requirements for the A.A. degree may not be used to meet concentration requirements.
- 1. **Culture and Humanity**
21 credit hours drawn from at least two of the following subjects:
English (ENGL), History (HIST), Philosophy (PHIL), Theology (THEO), or Classical Civilization (CLC).
 - 2. **Social and Behavioral Science**
21 credit hours drawn from at least two of the following subjects:
Economics (ECON), Political Science (POLS), Psychology (PSY), Sociology (SOC), and approved courses in Geography (GEO 101, 102, 200, 210, 274, 301 and approved 490).
 - 3. **Communication and Expressive Arts**
21 credit hours from at least two of the following subjects: Art (ART), Foreign Languages (FL), Communication (COMM), Music (MUS), the Theatre (THTR).
- From these concentrations, a student may construct the equivalent of an academic minor or, with additional

coursework, an academic major that may be applied toward the requirements for the B.A. degree.

**ASSOCIATE IN SCIENCE DEGREE
(60 CR.)**

- A. General Education Requirements**
 - 1. First Year Core (10 Cr.)
CORE 110 5 Cr.
CORE 115 5 Cr.
 - 2. Social Science 3 Cr.
 - 3. PE 100 1 Cr.
- 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 Advisor.
- 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 200.
 - 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 51.

**BACHELOR OF ARTS DEGREE
(124 CR.)**

- A. General Education Requirements**
 - 1. First Year Core 10 Cr.
CORE 110 5 Cr.
CORE 115 5 Cr.
 - 2. Theology 6 Cr.
 - a. THEO 200 3 Cr.
 - b. One upper level Theology course taken in the junior or senior year 3 Cr.
 - 3. Cultural Diversity 11 Cr.
 - a. 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 203 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 nonimmigrant visa are exempt from the foreign language requirement provided that they have successfully completed ENGL 101, English for International Students.

- b. Cultural Diversity course 3 Cr.
 - 1) Three credits of a diversity course(s) from a specified list of approved courses. This course cannot be applied simultaneously towards fulfillment of any other general education requirement.
 - 2) A semester abroad in one of the International Study Programs, the Chicago Urban Studies Semester, or either of the Washington Semester Programs.
- 4. Humanities 6 Cr.
Two of the following options:
 - a. Fine and Performing Arts 3 Cr.
A designated historical/critical or creative/performance course in Art, English, Foreign Languages, Music, Philosophy, or Theatre.
 - b. A History course 3 Cr.
 - c. A literature course numbered 200 from English, Foreign Languages, or Theatre . . . 3 Cr.
 - d. A Philosophy course (except PHIL 150) 3 Cr.
- 5. Social Sciences 6 Cr.
Two three-credit courses from two different subject areas in the social sciences: Economics, Gender Studies, Geography, Political Science, and Sociology
- 6. Natural Sciences 6-8 Cr.
Two courses, for a total of at least six credits, each of which has a laboratory component, selected from two of the following subject areas:

Astronomy, Biology, Chemistry, Physical Geography, Meteorology, Natural Science, Physics, and Psychology.

- 7. Quantitative Analysis . . 3 Cr.
One designated Quantitative Analysis course of at least three credits. This requirement can be fulfilled by approved courses in either the major or minor field, but a course cannot be applied simultaneously towards fulfillment of this requirement and any other general education requirement.
- 8. Health and Wellness . . . 1 Cr.
PE 100 1 Cr.

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 46).

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 nor 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 advisor.
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 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 of Arts 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 advisor. Normally, the individualized major will not include lower division courses or courses 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. This restriction refers to courses within the major or minor field, not to additional courses required from outside of the major or minor field.
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 subject area may be applied toward the 124 required for graduation. This limitation does not apply to students pursuing an English major and an English Creative Writing or Professional Writing minor, the Bachelor of Music or Bachelor of Music Education degrees, or the 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 Actuarial Science, American Studies, Chinese and Japanese Studies, Environmental Science, Geoscience, International Economics and Cultural Affairs, International Service, and complementary majors in Modern European Studies, Pre-Seminary Studies, and Youth, Family, and Education Ministry.

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, American Indian Studies, Applied Statistics, Business Administration, Chinese and Japanese Studies, Environmental Studies, Ethnic Studies, Film Studies, Gender Studies, Geoscience, Human Aging, Liberal Arts Business, Peace and Social Justice, Political Communication, and Urban Studies 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 Bachelor of Arts degree.

1. First Year Core 10 Cr
2. Theology 6 Cr.
 - a. THEO 200
 - b. one upper level Theology course
3. Cultural Diversity 11 Cr.
 - a. Foreign Language 8 Cr.
 - b. Cultural Diversity course . 3 Cr.
4. Humanities 6 Cr.

Two courses, one each from two different areas:

 - a. Fine and Performing Arts 3 Cr.
 - b. History 3 Cr.
 - c. Literature 3 Cr.
 - d. Philosophy 3 Cr.
5. Social Sciences 3 Cr.
6. Natural Sciences 3 Cr.
7. Quantitative Analysis 3 Cr.
8. PE 100 1 Cr.

B. Music Requirements

The requirements for the major fields are given on pages 142-143.

**BACHELOR OF MUSIC EDUCATION
DEGREE (138-142 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. 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, page 88.

A. General Education Requirements

For details see Bachelor of Arts degree.

1. First Year Core 10 Cr.
2. Theology 6 Cr.
 - a. THEO 200
 - b. one upper level Theology course
3. Cultural Diversity course 3 Cr.

ED 370 Home, School, and Community Relations
4. Humanities 6 Cr.
 - a. ENGL 200 Literary Studies 3 Cr.
 - b. One of: 3 Cr.
 - HIST 220 The American Experience to 1877 or
 - HIST 221 The American Experience in the Modern World
5. Social Sciences 3 Cr.
 - a. One of:
 - POLS 120 The Government of the United States
 - POLS 220 State and Local Politics in the United States
6. Natural Sciences 4 Cr.
 - a. BIO 125 or higher with lab
7. Quantitative Analysis 3-4 Cr.
 - a. Math 120 or higher
8. PE 100 1 Cr.

B. Other Required Courses

- PSY 110 General Psychology . . . 3 Cr.
 One of: 3 Cr.
 COMM 145 Interpersonal Communication
 COMM 243 Public Communication

C. Professional Education Requirements

1. ED 203 2 Cr.
2. ED 204 3 Cr.
3. ED 305 2 Cr.
4. ED 370 3 Cr.
5. ED 459 12 Cr.

College of Arts and Sciences

- 6. ED 460 3 Cr.
- 7. ED 485 3 Cr.
- 8. ED 489 3 Cr.
- 9. SPED 440 3 Cr.

D. Music Requirements

The requirements of the major field are given on page 143.

**BACHELOR OF SCIENCE DEGREE
(124 CR.)**

A. General Education Requirements

For details see Bachelor of Arts degree.

- 1. First Year Core 10 Cr.
- 2. Theology 6 Cr.
 - a. THEO 200
 - b. One upper level Theology course 3 Cr.
- 3. Cultural Diversity 3-4 Cr.

One course from either group:

 - a. Foreign Language 203 or higher 4 Cr.
 - b. Cultural Diversity course 3 Cr.
- 4. Humanities 6 Cr.

Two courses, one each from two different areas:

 - a. Fine and Performing Arts 3 Cr.
 - b. History 3 Cr.
 - c. Literature 3 Cr.
 - d. Philosophy 3 Cr.
- 5. Social Sciences 6 Cr.
- 6. Natural Sciences 6-8 Cr.
- 7. Quantitative Analysis 4 Cr.

MATH 124, 131, or 151
- 8. PE 100 1 Cr.

B. Major Field Requirements

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

- 1. A science minor, or
- 2. A non-science major, or
- 3. The Liberal Arts Business Minor (page 239), or
- 4. The Business Administration Minor (page 235), or
- 5. A Secondary Education Major (page 88), or
- 6. An Applied Statistics Minor (page 235); or
- 7. An Engineering Minor (page 212)

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 single subject area may be applied toward the 124 credit hours required for graduation.

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

The departmental major or the individualized major may be chosen provided that the major is at least 32 credit hours but not more than 48 credit hours; that courses for an individualized major are chosen from the sciences listed in item B above, and that other restrictions on majors are followed.

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

Completion of a special curriculum with a major in either elementary education or middle level education leads to the degree of Bachelor of Science in Education. This degree is intended for students who plan to become teachers in elementary schools, middle schools, or junior high schools.

A. General Education Requirements

For details see Bachelor of Arts degree.

- 1. First Year Core 10 Cr.
- 2. Theology 6 Cr.
 - a. THEO 200 3 Cr.
 - b. One upper level Theology course 3 Cr.
- 3. Cultural Diversity course 3 Cr.
 - a. ED 370 Home, School, and Community Relations
- 4. Humanities
 - a. ENGL 200 Literary Studies 3 Cr.
 - b. One of: 3 Cr.
 - HIST 220 The American Experience to 1877 or
 - HIST 221 The American Experience in the Modern World
- 5. Social Sciences 3 Cr.
- 6. Natural Sciences 7-8 Cr.
 - a. BIO 125, 151, or 171 4 Cr.
 - b. One of the following: 3-4 Cr.
 - CHEM 111, 115, 121, 131,
 - GEO 104, MET 103, ASTR 101/101L, PHYS 111/111L, 141/141L, PSY 110/1110, NS 101, 102
- 7. Quantitative Analysis 3 Cr.

MATH 213 Mathematics for Elementary Teachers I
- 8. PE 100 1 Cr.

- B. Education Requirements**
The requirements for the elementary and middle level education majors are listed on pages 85-88.

BACHELOR OF SCIENCE IN FINE ARTS DEGREE (124 CR.)

- A. General Education Requirements**
For details see Bachelor of Arts degree.
1. First Year Core 10 Cr.
 2. Theology 6 Cr.
 - a. THEO 200 3 Cr.
 - b. One upper level Theology course 3 Cr.
 3. Cultural Diversity 11 Cr.
 - a. Foreign Language 8 Cr.
 - b. Cultural Diversity Course. 3 Cr.
 4. Humanities 6 Cr.
Two courses, one each from two different areas:
 - a. Fine and Performing Arts 3 Cr.
 - b. History 3 Cr.
 - c. Literature. 3 Cr.
 - d. Philosophy 3 Cr.
 5. Social Sciences 6 Cr.
 6. Natural Sciences 8 Cr.
 7. Quantitative Analysis 3 Cr.
 8. PE 100 1 Cr.
- B. Major Field Requirements**
1. The student must complete a major in art consisting of at least 54 credit hours, including ART 101, 102, 121, 122, 132, 162, 221, 231, 251, one from (311, 317, 318, 319, 320, or 321) and 493. A concentration must be chosen in painting, sculpture, ceramics, photography, graphic design or art history.
 2. The student must receive approval by the Department of Art of a portfolio presentation by the beginning of the junior year to be eligible for this degree.
- 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. First Year Core 10 Cr.
 2. Theology 6 Cr.
 - a. THEO 200 3 Cr.
 - b. One upper level Theology course 3 Cr.
 3. Cultural Diversity 3-4 Cr.
One of:
 - a. Foreign Language 203 or higher. 4 Cr.
 - b. Cultural Diversity Course. 3 Cr.
 4. Humanities 3 Cr.
One of:
 - a. Fine and Performing Arts 3 Cr.
 - b. A History course 3 Cr.
 - b. A literature course 3 Cr.
 - c. A Philosophy course 3 Cr.
 5. Social Sciences 6 Cr.
 6. Natural Sciences 6-8 Cr.
Teacher Education and Exercise Science majors must complete BIO 151 and CHEM 111.
 7. Quantitative Analysis 3 Cr.
A calculus course or MATH 124
 8. PE 100 1 Cr.
- B. Major Field Requirements**
The first major, if the student has a double major, must be physical education. See page 151 for specific major requirements.

BACHELOR OF SOCIAL WORK DEGREE (124 CR.)

- A. General Education Requirements**
For details see Bachelor of Arts degree.
1. First Year Core 10 Cr.
 2. Theology 6 Cr.
 - a. THEO 200 3 Cr.
 - b. An upper level Theology course 3 Cr.
 3. Cultural Diversity 11 Cr.
 - a. Foreign Language 8 Cr.
 - b. Cultural Diversity Course. 3 Cr.
 4. Humanities 6 Cr.
Two courses, one each from two different areas:
 - a. Fine and Performing Arts 3 Cr.
 - b. History 3 Cr.
 - c. Literature. 3 Cr.
 - d. Philosophy 3 Cr.
 5. Social Sciences 6 Cr.

- 6. Natural Sciences 6-8 Cr.
 - 7. Quantitative Analysis 3-4 Cr.
 - 8. PE 100 1 Cr.
- B. Major Field Requirements
The first major, if the student has a double major, must be social work. See page 172 for specific major requirements.

Special Academic Regulations for the College of Arts and Sciences

REGULATIONS CONCERNING GENERAL EDUCATION REQUIREMENTS

1. No course may be used to meet more than one General Education Requirement.
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 (departmental majors or interdisciplinary majors) 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 100-149 toward a degree in the College of Arts and Sciences.
2. At most, four credit hours from the Computer Science courses numbered 128 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 147.
4. No more than 48 credit hours in any one subject may be applied toward the total of 124 credit hours required for graduation, each subject being identified by the 2-4 letter code preceding each course number in the catalog (e.g., COMM, MUS, PE, THTR). This limitation does not apply to students pursuing:

- a. a major in English and a minor in Creative Writing or Professional Writing,
 - b. the Bachelor of Music degree,
 - c. the Bachelor of Music Education degree, or
 - d. the Bachelor of Science in Fine Arts degree.
5. A student may apply no more than 15 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 Business Administration Minor may apply 21 credit hours in business administration.
 - c. Students completing the Actuarial Science Major may apply 19 credit hours in business administration, and may apply 20 credit hours in business administration only if IDS 110 is selected to complete the requirement.
 - d. Students completing an Engineering Minor may apply 18 credit hours in engineering.

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 43-50. 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 Deaconess Program, the prelegal program and the premedical 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 page 44 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.

The University currently prepares applicants for licensure in the following licensure categories listed under types of school and developmental settings.

License: Elementary Teaching

Elementary Grades 1-9 Generalist: Early/Middle Childhood - Intermediate

Additional content areas in:

- Special Education - Mild Intervention (Learning Disabilities, Mildly Mentally Handicapped, and Emotional Disorders)
- Any subject content area listed under High School Teaching

License: Middle School Teaching

Middle School/Junior High Grades 6-8)

Generalist: Early Adolescence

Students specialize in two of the following content areas:

- Language Arts
- Social Studies
- Mathematics
- Science

Additional content areas are available in:

- Special Education - Mild Intervention (Learning Disabilities, Mildly Mentally Handicapped, and Emotional/Behavioral Disorders)
- Any subject content area listed under High School Teaching
- Coaching

License: High School Teaching

High School Grades 9-12 Content Area

Licenses (Adolescence and Young Adult

Language Arts/English

Foreign Language - French, German, Latin, or Spanish

Health Education

Physical Education

Mathematics

Fine Arts

Music (instrumental and vocal)

Visual Arts

Science (one or more)

Life Science

Chemistry

Physics

Earth/Space Science

Physical Science

Social Studies (three or more)

Economics

Geographical Perspectives

Historical Perspectives

Government and Citizenship

Sociology

Psychology

Special Education: Mild Intervention (Learning

Disabilities, Mildly Mentally Handicapped, and Emotional Disorders)

Additional certification areas are available in:

- Any of the above content areas
- Coaching

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 premedical arts programs of the College. Students in these programs must have their schedules approved at the beginning of each semester by a major advisor and an assigned premedical arts academic advisor. Advising in the premedical arts is handled by premedical advisors, who are members of the Committee on Pre-Medical Arts. All recommendations to the professional schools are sent out by this Committee: Associate Professors Hicks (Biology), Goyne (Chemistry), Nelson (Psychology), and Scupham (Biology); Assistant Professors Erhardt (Chemistry), Scaglione-Sewell (Biology), and Schoer (Chemistry).

Premedical and pre-dental students are invited to join the Pre-Medical Society, a student organization that promotes interest

in medicine and dentistry through a program of guest lectures and social events. Those with outstanding academic records may be invited to join Alpha Epsilon Delta, a national medical honorary society.

In some fields such as medicine, dentistry and veterinary medicine, completion of a Bachelor of Arts or Bachelor of Science degree is often required before admission to a professional school. However, if three years or less of college work are needed for entrance into a professional program, a student may earn a bachelor's degree through the University's Combined Liberal Arts-Medical Arts program. This involves three years of work at Valparaiso University and one year of work at an approved professional school. Details are in the next section of this catalog. This program is often used by students in medical technology.

Students who want to enter allied health fields that require two years or less of college preparation may want to earn the Associate in Science Degree described on page 44. Further information about allied health fields may be obtained from the office of the Allied Health Advisor.

The course, GS 394, Health Care Professional Apprenticeship (see page 57), is offered in the Summer I Session (see page 249) and is of interest to students in premedical arts. Details are given in a Summer Session announcement each year.

COMBINED LIBERAL ARTS-MEDICAL ARTS PROGRAM

Students may complete the degree Bachelor of Arts or Bachelor of Science from Valparaiso University by completing three years of study at this University and completing an additional year's work at an approved school of medicine, dentistry, veterinary medicine, medical technology or other allied health disciplines. Prior approval of the program must be secured from the Committee on Pre-Medical Arts.

Specifically, students who elect one of these programs must meet the following requirements:

1. They must spend the junior year in residence at Valparaiso University.
2. They must meet all General Education Requirements for the Bachelor of Arts or Bachelor of Science degree with the exception that one course in theology is 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 complete 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. Prelaw students should select an academic major and consult with their academic advisor and a prelaw advisor to select courses in the student's areas of interest that 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.

COMBINED LIBERAL ARTS-LAW PROGRAM

Students may complete their bachelor's degree from Valparaiso University by completing three years of study at this University and completing an additional year's work at the Valparaiso University School of Law. Thereby students may obtain in six years (twelve semesters) both the Bachelor's degree and the Juris Doctor degree. Prior approval of the program must be secured from the Office of the Dean of the College of Arts and Sciences.

Students who elect this program must meet the following requirements before beginning the School of Law:

1. They must satisfactorily complete all General Education Requirements for the Bachelor's degree and an academic major.
2. They must satisfactorily complete at least 94 undergraduate credit hours.
3. At least one half of the credit hours for the major must be taken at Valparaiso University.

4. At least 75 credit hours, including the last 30 credit hours, must be taken at Valparaiso University.
5. They must have a grade point average of 3.0 in all undergraduate work at Valparaiso University.
6. They must be admitted to the Valparaiso University School of Law through the normal admissions process.
7. They must complete a minimum of 30 credits in the Valparaiso University School of Law with a grade point average of at least 2.0.
8. They must apply for the Bachelor's degree graduation by the deadline date as noted at the front of this catalog.

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. Students preparing for seminary should, with their first major, take the complementary major in **Pre-Seminary Studies** (page 165). 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 advisor 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 that 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 230, with a standing of 2.00 or better may then apply to the Dean of the College of Nursing for admission to that College.

DEACONESS EDUCATION AND FORMATION PROCESS

The University and the Lutheran Deaconess Association (LDA) cooperate in the education and formation of women for service in deaconess ministry. In response to a changing world, the LDA offers a process that allows students to express their Christian vocation through church, civic, or human service professions. Plans may be individualized, combining deaconess students with many academic majors, to earn a graduate or undergraduate degree.

The education and formation process is under the counsel and guidance of the staff of the Lutheran Deaconess Association. Inquiries should be directed to the Director of Education and Formation, Center for Diaconal Ministry, 1304 LaPorte Avenue, Valparaiso, Indiana 46383-9978. Phone 210-464-6925. E-mail: deacserv@valpo.edu. Application forms and fee schedule are outlined on the website: <www.valpo.edu/lda>. Students may apply during their sophomore year, but must be at least 20 years old or have junior standing. Week-long orientation and annual seminars are required during each year of the process.

Deaconess students work with the LDA staff and academic advisors to determine a program of academic study, planned experiences, and reflection in these areas:

1. **Spirituality.**
Focus on personal and spiritual growth, which may include spiritual direction, discernment retreats, counseling, journal reflection, prayer, and worship.

2. **Theology.**
Academic courses cover these topics. Exceptions can be made with agreement of LDA and academic advisor.
 - a. Biblical studies, both Old and New Testament, or overview of the Bible;
 - b. Church History, from the apostolic era through Reformation to present;
 - c. Lutheran/Christian theology;
 - d. World Religions or in-depth study of a non-Christian tradition;
 - e. Theology of Diaconal Ministry (THEO 451/551);
 - f. Basic Homily Preparation, proclamation of the gospel;
 - g. Practicum in Ministry (THEO 480/680). May be taken twice, to fulfill work/ministry requirement; see below;
 - h. Clinical Education for Ministry (THEO 453/553). May be taken to fulfill work/ministry requirement; see below.Other courses may be suggested, depending on the student's ministry focus, such as Understanding of self, others, and group dynamics; Christian worship; Religious education; Understanding issues of human need and social justice.
3. **Work/Ministry.**
Field work at a practical ministry site; 100 hours over two semesters. May be taken for credit at Valparaiso University (THEO 480/680, two credits per semester), or may be completed without academic credit.
Clinical Pastoral Education. May be taken for credit at Valparaiso University (THEO 453/553, Clinical Education for Ministry), or may be completed through a certified CPE program off-campus.
Internship in a ministry or human services profession, one year, full-time paid position. May be done between the junior and senior year or after graduation.
4. **Diaconal Community.**
Participation in the deaconess community, including campus activities, area deaconess groups, and annual conferences.
Relationship with a deaconess mentor.

Deaconess ministries have been combined with, but are not limited to, these academic majors: Theology; Nursing; Church Music, liturgy, worship; Education; Psychology; Social Work; pre-medical, medical fields, occupational therapy/physical therapy; languages and classical languages; International Service; Law; Youth, Family, and Education Ministry; Business; Master of Arts in Liberal Studies programs.

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 engineering 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 162 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 apply for Honors Work should understand that their work will be evaluated according to the highest standards of scholarly achievement.

Honors Work may be pursued by any student who is a degree candidate in the College of Arts and Sciences and whose major or program is administered by a department or an administrative committee within the College.

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 committee for admission to Honors Work. To apply, the student must submit a plan for a major independent project that 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. (For more information, please attend the Beyond Valpo program held annually during the spring semester.) This plan must be presented to the chair of the student's department or program for approval and forwarded to the dean's office no later than 12:00 P.M. on the third Monday of April 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 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 midyear by a project committee consisting of the chair of the major department or program, the project advisor, 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 appropriate to the student's discipline 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 must earn an A or A- for the first semester), the student will be denied admission to Candidacy for Honors. The student should consult with the project advisor 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 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 whose major requires completion of a senior project 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

CORE 110, 115. The Human Experience.

Cr. 10. A writing-intensive interdisciplinary course that initiates first year students into the VU academic community by exploring significant themes in human experience, engaging students with resources from the areas of history, theology, philosophy, literature and the arts. It is a core experience extending for two semesters, 5 credits each semester, in seminar sections of about 20 students. It is taught by a trained core faculty from areas across the University, the faculty meeting regularly to promote extensive collaborative activity for both faculty and students.

CPED 381. Cooperative Education I.

Cr. 0.5-3. This course is a prearranged, 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 56.

GS 100. VU Strategies.

Cr. 0. A course to assist first-year students in developing skills necessary for college success, including study skills, learning styles, time management and test-taking strategies. Administrative Assistant Luci Hicks' signature required.

GS 150. Exploratory Studies and Vocational Discernment.

Cr. 2. A course designed to help students understand the concept of vocation. Students will also learn to put to use certain practices of vocational discernment that might help them find their majors and shape their lives. Readings will be drawn from both secular and sacred texts, from the Judeo-Christian as well as other religious traditions. Includes a mandatory weekend retreat. Will meet for seven weeks, beginning with week four. Freshmen and sophomore students only.

GS 180. Civic Engagement.

Cr. 1-2. This course recognizes student volunteer service work for the community. Students earn the credit by completing a specific project, which may be initiated as part of a particular course, through a recognized University service organization, or independently. If students undertake the project through a service organization or independently, a professor must certify the project as appropriate, supervise its completion, and assign the grade. Students must file a proposal with the supervising professor and register for the credit. The proposal must present a detailed overview of the work of the project, which must entail a substantial time commitment (a minimum of 20 hours or work is required for each credit), and identify a written reflection component specifically related to the project. Students may not earn additional GS credit for work already required by the service-learning component of a course. Internship students may earn GS credit through an additional project, with the consent of the instructor. S/U grade. This course may be repeated for up to 3 total credits.

GS 200. Study Circle on Race Relations.

Cr. 2. This course will offer 8-20 students the opportunity to engage in a series of participatory, democratic discussions about race relations on campus and in society. In addition, students will learn how to become involved in improving human relations by developing and implementing an 'action plan' component that involves collaborative, practical strategies that improve race and ethnic relations on campus and in our community. The instructor(s) for the course will serve as facilitator(s), establishing ground rules for a safe, focused discussion in which participants can exchange ideas freely and consider a variety of views about race relations in America. This course is offered for S/U grade only and may be used in partial fulfillment of the Cultural Diversity component of the General Education Requirements.

GS 201. Facilitator Training for Study Circles.

Cr. 1. This course will be offered to students who have completed GS 200 and who want to become facilitators for Study Circles on Race Relations. By taking this course, students will understand what a study circle is, learn about specific study

circle programs, understand the role of a facilitator, and practice the basic skills needed to be an effective study circle leader. There will be weekly readings and reflection papers as well as an end of the term report. This course is offered for S/U grade only and may be used in partial fulfillment of the Cultural Diversity component of the General Education Requirements. Prerequisite: GS 200.

GS 390. Topics in English Life and Culture.

Cr. 3. A study of selected aspects of English life and culture. Topics might include, but are not restricted to politics, education, religion, business, environment, and multi-cultural issues. Cambridge Center only.

GS 390. Topics in German Life and Culture.

Cr. 3. A study of selected aspects of German life and culture. Topics might include, but are not restricted to politics, education, religion, business, environment, and multi-cultural issues. Reutlingen Center only.

GS 394. Health Care Professional Apprenticeship.

Cr. 1. The course is designed to provide an opportunity for students to observe health care professionals at work in a hospital or clinic setting. The student is required to spend at least 120 hours shadowing one or more health care professionals. Students must submit a daily journal and paper detailing their experiences to their academic advisor. S/U grade. Prerequisites: Proof of instruction in safeguarding the privacy of Protected Health Information (PHI) as specified in the Health Insurance Portability and Accountability Act (HIPAA); one year in residence; a minimum cumulative grade point average of 3.2; and approval of the academic advisor.

GS 395. Independent Study Project.

Cr. 1-4. 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.

NS 101. Introduction to Forensic Science.

2+2, Cr. 3. Forensic science is the application of scientific principles to criminal and civil laws within a criminal justice system with the goal toward establishment of guilt or innocence. This course is designed to introduce some of the specialized fields of forensic science, to learn the fundamental principles of science and technology

upon which they are based, and to apply them to a number of suspicious situations and criminal cases. This course is intended for non-science majors for partial fulfillment of the General Education Requirements in Natural Science. Not open to students who have received credit for CHEM 111, 115, 121, or 131 or BIO 151, 152, 171, or 172 without the consent of the instructor. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

NS 102. Science of the Indiana Dunes.
2+3, Cr. 3. This course poses questions about how earth systems work together to produce the physical landscape of the dunes and also asks scientific questions about the human transformation of that landscape. The course is problem oriented and explores questions about the interaction among ecology/biogeography, atmosphere, water, and geology. It also examines the local environment in both regional and global contexts, considering questions about how change shapes the environment, both in the past and into the future. Throughout students learn scientific concepts and methods and gain basic scientific literacy in order to understand the landscape. This course is intended for non-science majors for partial fulfillment of the General Education Requirements in Natural Science. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

NS 103. Practical Stream Stewardship: Saving the Planet a Trout at a Time.
2+3, Cr. 3. A hands-on, interdisciplinary course with laboratory designed to train students to apply the scientific method to restoration of a rare, cold-water fishery. Through extensive site visits and field observations, students will survey and monitor a river reach to discover its limiting factors. As they install improvements (legally-permitted) on other reaches, they will identify and design appropriate restorations for their assigned reach, predict the effect of their implementation and propose an appropriate test. Lectures will

clarify technical aspects of river restoration. Discussions will include how to find and serve community partners (landowners, conservation clubs, state fish and wildlife professionals e.g.), permitting and financing restoration and a philosophy which guides us to attainable ends. Fieldwork is suited for someone with an active lifestyle who enjoys the outdoors, sleeping in rustic cabins and canoeing. Such an assurance or permission of instructor required. Additional fee required. Includes a required one four-day and one three-day field trip. Partially fulfills the Natural Science component of the General Education Requirements. Offered in the summer only.

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

- GS 338. The Core Course: Public Policy in an Urban Center. Cr. 4.
- GS 348. The Seminar. Cr. 4.
- GS 386. The Internship. Cr. 4.
- GS 395. Independent study Project. Cr. 4.

All sophomores, juniors and seniors at the University are eligible to participate in this program. Students shall be admitted to this program on the recommendation of the Urban Studies Advisory Committee.

Valparaiso University students register at Valparaiso for the Chicago Urban Semester and pay to Valparaiso University the general fee charged of all full-time students. Expenses for travel, meals and lodging are paid directly by the students. Full credit toward graduation is given for all courses taken in the Urban Studies program. The program is offered in both the fall and the spring semesters.

See page 242 for course descriptions and the Urban Studies Minor requirements.

Actuarial Science

Administrative Committee:
Professors Gillman (Mathematics and Computer Science), Ozgur (Information and Decision Sciences); Associate Professors Hull (Mathematics and Computer Science), Pirie (Finance), Shingleton (Economics, Chair).

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

Objectives. Actuarial science can be described as the study of the current financial implications of future contingent events. Actuaries, employed by insurance companies, consulting firms or government agencies, must have excellent quantitative reasoning skills in addition to an understanding of modern business and finance. The Actuarial Science program provides a background in the areas of mathematics, finance, statistics, and economics. Students interested in pursuing the Actuarial Science major or minor should confer with a member of the Administrative Committee.

Major Requirements. A minimum of 62 credit hours approved by the Administrative Committee is required. Specific required courses are listed below. Students completing the Actuarial Science program may apply 19-20 credit hours in business administration courses toward the Bachelor of Science degree. Introductory courses fulfill the Quantitative Analysis General Education Requirement and 3 or the 6 credits required for the Social Science General Education Requirement.

The Business Administration Minor and the Applied Statistics Minor are not available to Actuarial Science majors.

REQUIRED MAJOR COURSES

Introductory Courses

ACC 205 Financial Accounting	3 Cr.
ACC 206 Managerial Accounting	3 Cr.
ECON 221 Principles of Economics-Micro	3 Cr.
ECON 222 Principles of Economics-Macro	3 Cr.
IDS 110 Business Spreadsheet Applications OR	
CS 157 Algorithms and Programming	1-4 Cr.
IDS 111 Business Applications Programming	1 Cr.
MATH 131 Calculus I	4 Cr.
MATH 132 Calculus II	4 Cr.
MATH 264 Linear Algebra I	3 Cr.
Total	25-28 Cr.

Probability and Statistics

MATH 240 Statistical Analysis	4 Cr.
MATH 340 Statistics for Decision Making OR	
ECON 325 Econometrics	3 Cr.
MATH 341 Probability	3 Cr.
MATH 342 Mathematical Statistics	3 Cr.
MATH 344 Applied Probability and	
Statistical Decision Theory	3 Cr.
ECON 493 Seminar in Applied Statistics	3 Cr.
Total	19 Cr.

Finance and Modeling

FIN 304 Financial Management	3 Cr.
FIN 410 Theory of Corporate Finance	3 Cr.
FIN 330 Management of Financial Institutions OR	
FIN 420 Investment Management	3 Cr.
ECON 321 Intermediate Micro-Economic Theory OR	
ECON 324 Managerial Economics	3 Cr.
IDS 320 Management Science	3 Cr.
Total	15 Cr.

Capstone Course

ACRS 325 Actuarial Modeling	3 Cr.
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Total Program Requirement 62-65 Cr.

Minor. On a smaller scale than the major, the minor in Actuarial Science provides a foundation for students desiring to explore a career as an actuary. A minimum of 15 credit hours constitutes a minor. Three of the five required courses have considerable prerequisites, and a student interested in this minor should consult with his or her academic advisor as soon as possible to plan a course of study. It is expected that most students will fulfill many of the prerequisites through the course of their academic majors.

REQUIRED MINOR COURSES

ACRS 325 Actuarial Modeling 3 Cr.
ECON 221 Principles of Economics-Micro . . . 3 Cr.
ECON 222 Principles of Economics-Macro . . . 3 Cr.
FIN 410 Theory of Corporate Finance 3 Cr.
MATH 341 Probability 3 Cr.

ACRS 325. Actuarial Modeling.

Cr. 3. A study of actuarial models in the context of insurance. Core topics include autoregressive time-series, random walks, forecasting and estimation with linear time-series models, annuities and basic life contingencies. Additional topics may be chosen from statistical rate making, credibility, simulation, utility theory, ruin theory, actuarial professional issues. Normally offered in alternate years. Prerequisite: MATH/IDS 340 or ECON 325.

ACRS 386. Internship in Actuarial Science.

Cr. 1-3. Opportunities for students to have direct, supervised experience in public agencies or private industry, such as insurance companies or consulting firms. S/U grade. Prerequisites: Actuarial Science major and approval of the Chair of the Actuarial Science program.

ACRS 495. Independent Study in Actuarial Science.

Cr. 1-3. Students study advanced topics in actuarial science under the supervision of a faculty member. Written work is required. Prerequisite: consent of the Chair of the Actuarial Science program.

American Studies

Administrative Committee: Professors Albers (Theology), Baas (Political Science), Feaster (English), Janke (Geography and Meteorology), Morgan (Christ College), Sponberg (English, Chair); Associate Professors Buggeln (Christ College), Kilpinen (Geography and Meteorology), Ruff (English), Schaefer (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; American Women's Diaries (10 microfilm reels); Black Abolitionist Papers (17 Microfilm reels); Early American Imprint Collection (49,000 items); The War of the Rebellion: official records of the Union and Confederate Armies (130 volumes); Bulletin of the Bureau of American Ethnology (199 volumes); The Jesuit Relations and Allied Documents: Travels and Explorations of the Jesuit missionaries in New France, 1610-1791 (73 volumes); the Brauer Museum of Art (www.valpo.edu/artmuseum); the Washington Semester Program; the

Lutheran College Washington Consortium; The Chicago Arts Program; The Chicago Urban Semester (pages 12-13).

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 advisor 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 62).

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. Interested persons should schedule a visit with the committee chair.

Program Core

ART 320 American Painting or ART 321 American Art and Architecture	3 Cr.
ENGL 401 American Literature I	3 Cr.
ENGL 402 American Literature II	3 Cr.
HIST 220 The American Experience to 1877	3 Cr.
HIST 221 The American Experience in the Modern World	3 Cr.
POLS 120 Government of the U.S.	3 Cr.
THEO 324 Christianity in America	3 Cr.
AMST 495 Independent Study	3 Cr.

Elective Courses

ART 311 Topics in the Theory and History of Art	3 Cr.	POLS 320 Politics of Urban and Metropolitan Areas	3 Cr.
CC 300 Seminar	3 Cr.	POLS 325 Problems in American Politics	3 Cr.
CC 325 Seminar (with approval of committee chair and consent of the Dean of Christ College)	3 Cr.	POLS 326 The Presidency	3 Cr.
ECON 233 The Economics of Race and Gender	3 Cr.	POLS 327 Congress	3 Cr.
ENGL 365 Studies in American Literature.	3 Cr.	POLS 340 Constitutional Law I.	3 Cr.
ENGL 390 Topics in Literature (with the approval of the committee chair)	3 Cr.	POLS 341 Constitutional Law II.	3 Cr.
Note: the Department of English offers courses under both 365 and 390 that are applicable to the American Studies Program. Recent offerings include The Novel of Social Criticism in American, American Literary Realism, and Fiction by American Women.		POLS 355 Problems in Political Philosophy (with the approval of the committee chair).	3 Cr.
GEO 274 North American Indian on Film	3 Cr.	SOCW 330 Vulnerable Populations: Color, Gender and Orientation	3 Cr.
GEO 301 Regional Geography: United States and Canada	3 Cr.	SOC 325 Urban Sociology	3 Cr.
GEO 474 Historical Geography of the U.S.	3 Cr.	SOC 347 Race and Ethnic Relations.	3 Cr.
HIST 225 Alternative Perspectives of United States History	3 Cr.	SOC 390 Issues in Sociology (with the approval of the committee chair).	3 Cr.
HIST 321 The American Revolution, 1763-1789	3 Cr.	THTR 337 American Theatre	3 Cr.
HIST 323 Civil War and Reconstruction.	3 Cr.	THEO 320 Topics in Christian History: History of Lutherans in America	3 Cr.
HIST 324 Depression and War: The United States, 1929-1945	3 Cr.	THEO 368 Native American Religions	3 Cr.
HIST 325 The Age of Anxiety: United States Since 1945	3 Cr.		
HIST 390 Topics in History	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.	
HIST 394 Beats and Hippies	3 Cr.	AMST 497. Honors Work in American Studies. Cr. 3. See Honors Work, page 54.	
HIST 492 Reading and Discussion Seminar	2-3 Cr.	AMST 498. Honors Candidacy in American Studies. Cr. 3. See Honors Work, page 54.	
HIST 493 Research Seminar (with the approval of the committee chair)	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 Slavery in the Americas, History of the American South, American Environmentalism, Pearl Harbor, American Immigration History.			
PHIL 290 Philosophical Topics (with the approval of the committee chair)	3 Cr.		
POLS 220 State and Local Politics in the U.S.	3 Cr.		

Art

Associate Professors Corazzo, Sirko (Chair); Assistant Professors Oldenburg, Tomasek.

The Art Department offers instruction in basic design, graphic design, drawing, digital art including 3D modeling, painting, photography, sculpture, ceramics, art education and art history. Interdisciplinary majors are possible which combine these areas with such fields as journalism, drama, marketing, communications 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. Frequent use is made of the outstanding collection of American art in Valparaiso University's Brauer museum of Art, which offers 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 251. The Bachelor of Science in Fine Arts degree requires 54 credit hours of art; see page 49.

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.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 49 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 advisor in the Education Department concerning state and University Requirements.

ART HISTORY

ART 101. Ancient to Medieval Art History.

Cr. 3. A survey of art history from prehistoric times through the Gothic period. Field trip. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

ART 102. Renaissance to Modern Art History.

Cr. 3. A survey of art history from the Renaissance to the 19th century. Field trip. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

ART 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. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

Art

ART 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. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements. Prerequisite: junior standing or approval of the Chair of the Department.

ART 318/518. Nineteenth Century European Art.
Cr. 3. A seminar course tracing major themes in 19th century European art. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements. Prerequisite: junior standing or approval of the Chair of the Department.

ART 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. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements. Prerequisite: junior standing or approval of the Chair of the Department.

ART 320/520. American Painting.
Cr. 3. A survey of American painting history from colonial times through the present. Field trip. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

ART 321/521. American Art and Architecture.
Cr. 3. A survey of American painting, sculpture and the building arts, beginning with the earliest settlements in Virginia and New England. Several areas of focus will be integrated with field trips to museums and an architectural tour of landmark buildings. Emphasis will be placed on colonial and modern architecture, nineteenth century realism and romanticism and the emergence of modernism and abstraction in the twentieth century. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

STUDIO

ART 121. Drawing.
0+6, Cr. 3. A basic course in the fundamentals of drawing and using various media. Field trip. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

ART 122. Drawing: Advanced Studies.
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.

ART 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. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

ART 151. Ceramics.
0+6, Cr. 3. Basic ceramic processes including wheel throwing, hand building, tapestry and coiling. Field trip. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

ART 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.

ART 162. Photography I.
0+6, Cr. 3. Introduction to the techniques, history, and aesthetics of color photography. Each student must have a working 35mm camera. Field trip. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

ART 221. Painting.
0+6, Cr. 3. Problems in painting in oil and other media. Emphasis on color theory and composition. Field trip. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements. Prerequisite: ART 121.

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

ART 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.

ART 231. Graphic Design I.
0+6, Cr. 3. Introduction to the principles of graphic design with emphasis placed on typographic solutions. Works are created on Macintosh computers. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

ART 232. Graphic Design II: Advanced Problems.
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.

ART 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. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements. Prerequisites: ART 121 and 132 or consent of the instructor.

ART 252. Sculpture: Advanced Studies.

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

ART 260. 4x5 Photography.

0+6, Cr. 3. Introduction to large format photography. Study of camera and darkroom techniques. Camera lease required. Field trip. Prerequisite: ART 162.

ART 262. 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.

ART 266. Advanced 4x5 Photography.

0+6, Cr. 3. Advanced techniques and practices of large format photography. More advanced study of camera and darkroom techniques. Camera lease required. Field trip. Prerequisite: ART 260.

ART 285. 3D Design and Animation.

0+6, Cr. 3. Introduction to three dimensional modeling techniques, computer drawing and basic animation. Prerequisite: ART 231.

ART 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.

ARTE EDUCATION**ART 343. Educational Art-Methods and Materials Workshop.**

Cr. 3. This course provides the prospective teacher with studio experiences in the selection, organization and use of two- and three-dimensional art and craft materials. Students will learn to format lesson plans in accordance with state and national standards following the Discipline Based Art Education model. This course may not be counted toward a minimum major or a minor in Art.

ART 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. A field component is required. Field trip. Prerequisite: admission to Teacher Education.

SPECIAL STUDIES**ART 386. Internship.**

Cr. 1-3. Internships in which students work with professional art-related organizations in such areas as photography, graphic design, or with an art museum. Prerequisite: consent of department chair. Grade is S/U only.

ART 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. 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 graduate students: undergraduate art major or consent of instructor.

ART 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.

ART 495. Independent Study in Art.

Cr. 1-4. Independent work for junior or senior level students under the supervision of an instructor. Prerequisite: consent of the instructor.

ART 497. Honors Work in Art.

Cr. 3. See Honors Work, page 54.

ART 498. Honors Candidacy in Art.

Cr. 3. See Honors Work, page 54.

Biology

Professor G. Davis; Associate Professors Eberhardt (Acting Chair–Spring), G. Evans, Hicks, Scaglione Sewell, Scupham (Chair–Fall), Watters; Assistant Professor Swanson.

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, evolutionary. The department offers instruction at each of these levels designed to meet the requirements for graduate study, for professional schools, and for teaching careers in biology or for working in industrial or governmental positions.

The Biology Department is housed in the Neils Science Center, a teaching-research facility with state-of-the-art equipment such as advanced research light microscopes and an electron microscope. Nearly all biology courses have a laboratory component and all field or laboratory classes are taught by professors or other experienced faculty. The department makes extensive field trips for its organismal biology 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 faculty members. Majors also have opportunities to study abroad at the University's overseas centers or at affiliated institutions as well as at 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, 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 BIO 171, 172, 270, two of courses 290 to 380, two of courses 420 to 490 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 380, two of courses 420 to 490 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 Business Administration Minor, a Liberal Arts Business Minor, a science minor, a complementary Education major, or an Applied Statistics Minor. Courses must include BIO 171, 172, 270, two of courses 290 to 380, two of courses 420 to 490, 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 minor. Courses must include BIO 171, 172, 270, two of courses 290 to 380, two of courses 420 to 490, two credit hours in 493, two credit hours in 495, plus at least six additional credit hours chosen from BIO 290 to 499.

Note: Neither BIO 486 nor BIO 489 may be counted toward any of the above departmental majors.

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 Quantitative Analysis or its equivalent (see page 45). 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.

Note: Neither BIO 486 nor BIO 489 may be counted toward the above departmental minors.

Field Station. Valparaiso University has a partnership with a biological field station in southern Michigan called Pierce Cedar Creek Institute. Funding is available through PCCI for student/faculty summer research collaborations at the field station. See the department chair for more information.

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

Approval of Schedules. All students taking majors or minors in biology and all students planning to teach biological subjects must have their schedules approved by their academic advisors at the beginning of each semester.

Note: Entering students who satisfy requirements for Biology 171 or equivalent by passing the College Level Examination Program (CLEP) examination in Biology or the Advanced Placement Examination (AP) in Biology are granted 4 credit hours toward graduation.

BIO 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. Not open to students who have received credit for BIO 151 or 171. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

BIO 151. Human Anatomy and Physiology I.

3+3, Cr. 4. An introductory study of the physiochemical nature of cells and tissues, cell division and human genetics, the musculoskeletal system, the nervous system and special senses and chemical control. May be used in partial fulfillment of the General Education Requirements in Natural Science. This course is required for nursing, physical education, and some allied health students. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination. Students may register concurrently for MATH 110 and BIO 151.

BIO 152. Human Anatomy and Physiology II.

3+3, Cr. 4. A continuation of Human Anatomy and Physiology I. A study of hematology and the anatomy and physiology of the following organ systems: cardiovascular, respiratory, digestive, excretory, endocrine, and reproductive. May be used for partial fulfillment of the General Education Requirements in Natural Science. Prerequisite: BIO 151, MATH 110 or placement higher than MATH 110 on the math placement examination.

BIO 171. Unity of Life.

3+3, Cr. 4. A study of organic molecules, cells, tissues and organs for biology majors and general biology 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. This course is required for biology majors and general biology minors including premedical and some other preprofessional students. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

BIO 172. Diversity of Life.

3+3, Cr. 4. A survey of the kingdoms of organisms, their relationships and origins, and their roles in the economy of nature. Emphasis is on the structures and their functions, life cycles, development, distribution, ecology, evolution, and the social and economic importance of representative members. Field trips are required. May be used in partial fulfillment of the General Education Requirements in Natural Science. Prerequisite: BIO 171 or 151 or equivalent, or consent of the Chair of the Department; MATH 110 or placement higher than MATH 110 on the math placement examination.

BIO 205. Fundamental Nutrition.

Cr. 3. A study of the basic principles of human nutrition. Emphasis is on practical application and includes a focus on sports nutrition. Not open to students who have received credit for BIO 260.

Biology

BIO 210. Microbiology.

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

BIO 250. Human Environmental Biology.

Cr. 3. A study of the relationships between humans, technology, and the environment. Emphasis is placed on ecological principles, human population growth, resources, and pollution. May be used by Elementary Education majors to fulfill the conservation requirement. Field trips are required.

BIO 260. Human Nutrition.

Cr. 3. Basic principles of human nutrition including nutrient functions, recommendations and food sources. Not open to students who have received credit for BIO 205. Prerequisite: CHEM 111 and BIO 151 and 152 or consent of the Chair of the Department.

BIO 270. Genetics.

3+3, Cr. 4. An introductory study of the basic laws of genetics, the physical and chemical basis of inheritance, genes as 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 172 or 152 or equivalent.

BIO 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 offerings are: Human Genetics, Macroevolution, and Plant Biology.

BIO 320. Comparative Vertebrate Anatomy.

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

BIO 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.

BIO 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 in the late winter and spring months. The lectures emphasize the flowering plants and/or birds, but in the field attention is paid to other common or conspicuous organisms. Field trips are required. Prerequisite: BIO 172.

BIO 360. Modern Microscopy.

2+3, Cr. 3. An advanced study of practical techniques of light microscopy, scanning electron microscopy and digital image processing. Emphasis is placed upon producing micrographs that convincingly illustrate results of biology experiments. Collaboration with student investigators in other courses is strongly encouraged. Prerequisite: BIO 152 or 172.

BIO 380. Principles of Human Physiology.

Cr. 3. A study of the function of and interactions between organ systems and the mechanisms that regulate their physiology. Emphasis is placed on the basic principles of homeostasis and an introduction to disease physiology and drug actions. Prerequisite: BIO 172 and junior standing. Not open to students with credit for BIO 151 or BIO 152.

BIO 420. Developmental Biology.

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

BIO 440. Ecology.

3+4, 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. Field trips are required. Prerequisite: BIO 172 and preferably a prior field course.

BIO 450. Molecular Biology.

3+3, Cr. 4. A study of the molecular basis of genetic interactions and processes in prokaryotic and eukaryotic organisms. Laboratories emphasize standard microbiological techniques as well as recent advances in gene cloning and molecular genetics. Prerequisites: BIO 270 and CHEM 221.

BIO 460. Cell Biology.

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, organelles, energy transformation, membrane transport, excitability, contraction, and signal transduction. Prerequisite: BIO 270 and CHEM 221.

- BIO 486. Internship in Biological Science.**
Cr. 0.5-2. Students gain experience in biology by working for private or public research/diagnostic labs, state or federal agencies, environmental consulting firms, non-profit environmental groups, or other appropriate organizations. Final written report required. This course may not be counted toward a major or a minor in this department. S/U grade only. Prerequisite: major or minor in biology and consent of the Chair of the Department.
- BIO 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. A field component is required. Prerequisite: admission to Teacher Education.
- BIO 493. Seminar in Biology.**
Cr. 1. Student and staff presentation and discussion of selected topics in biology. Current topics are Animal Behavior, Gene Technology, Embryology, Immunology, and Diet and Disease. Intended for seniors. 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. S/U grade optional.
- BIO 494. Premedical Arts Colloquium.**
Cr. 0. (Also offered as CHEM 494.) All Premedical Arts students are encouraged to register for this course every semester. May not be counted for a major or minor. S/U grade.
- BIO 495. Research in Biology.**
Cr. 1-2. Special research problems. Prerequisites: 12 credit hours of biology, prior approval of a supervising instructor and the Chair of the Department is required. A maximum of 4 credit hours in this course may be applied toward graduation. S/U grade optional.
- BIO 497. Honors Work in Biology.**
Cr. 3. See Honors Work, page 54.
- BIO 498. Honors Candidacy in Biology.**
Cr. 3. See Honors Work, page 54.
- BIO 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. S/U grade.

Chemistry

Professor Kosman (Chair); Associate Professors Engerer, Goyne; Assistant Professors Jantzi, Schoer.

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 school. 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, including the biochemistry option, 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 or a Bachelor of Science degree in chemistry or a Bachelor of Science degree in biochemistry.

Pre-Medical Arts Programs. A major in chemistry or biochemistry 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.

Chemical Engineering. The College of Engineering offers a minor in engineering. Combining an engineering minor with a major in chemistry will prepare students who wish to pursue further studies in chemical engineering. Further information may be obtained from the Chair of the Chemistry Department or the Freshman Engineering Coordinator in the College of Engineering.

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

1. Bachelor of Arts degree. A minimum of 27 credit hours in chemistry is required. Courses must include CHEM (121 or 131), (122 or 132), 221, 222, 230, and (311 or 321). A combination of this major with a minimum major in another science can lead to a Bachelor of Science degree (see page 48).
2. Bachelor of Science degree. A minimum of 32 credit hours in chemistry is required. Courses must include CHEM (121 or 131), (122 or 132), (190 or 495), 221, 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 (121 or 131), (122 or 132), 190, 221, 222, 230, 315, 321, 322, 421, 422, and 2 credit hours of 495. PHYS 141 and 142 (with labs) and MATH 234 (or equivalent) are required for certification. CHEM 495 may instead be taken as the Honors Work sequence, 497 and 498.
4. Bachelor of Science degree in Biochemistry. The program leading to

this degree is approved as a degree option by the American Chemical Society for the training of professional chemists. A minimum of 44 credits in chemistry and 12 credits in biology is required. Courses must include CHEM (121 or 131), (122 or 132), 190, 221, 222, 230, 315, 316, 317, 321, 322, 421, 2 credit hours of 495, BIO 171, 270, and (450 or 460). PHYS 142 (with lab) and MATH 234 (or equivalent) are required for certification.

The research conducted in CHEM 495 must be in the area of biochemistry. It may also be taken as BIO 495 or CHEM 497 and 498, Honors Work sequence.

Biochemistry Concentration. Within the 32-credit Bachelor of Science degree option, a student may choose to add a biochemistry concentration. This requires CHEM 315, 316, and 317, BIO 171, 270, and (450 or 460) along with the courses listed above in option 2. Students choosing this concentration will most likely get a biology minor, which would also require BIO 172.

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

Chemistry Club. The Chemistry Club, an 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 students 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 science courses. For further information, refer to Cooperative Education, College of Arts and Sciences, page 56.

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.

CHEM 111. Introduction to Chemistry.
3+2, Cr. 4. A one semester overview of general, organic, and biochemistry. Intended for non-science majors who elect chemistry to meet one part of the natural science requirement. Students with a major or minor in elementary education, nursing, or physical education ordinarily take this course to meet their chemistry requirement. Not open to students with credit for CHEM 115, 121, or 131. Students may take CHEM 111 prior to taking CHEM 121, but may not use both courses toward a chemistry major or minor, or toward fulfillment of the General Education Requirements in Natural Science. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

CHEM 115. Essentials of Chemistry.
3+2, Cr. 4. A one semester introductory course in the principles of chemistry for engineering students. Not open to students with credit for CHEM 121 or CHEM 131. Prerequisite: enrollment in the College of Engineering or consent of the Chair of the Chemistry Department.

CHEM 116. Applications of Chemistry in Engineering.
3+3, Cr. 4. A continuation of CHEM 115; offering additional principals of chemistry for engineering students, especially civil engineering students, with emphasis on analytical chemistry. Not open to students with credit for CHEM 122 or CHEM 132. Prerequisite: CHEM 115 and enrollment in the College of Engineering, or consent of Chair of the Chemistry Department.

CHEM 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 premedical, pre-dental, or medical technology programs, except for students who take CHEM 131. Not open to students with credit for CHEM 115 or CHEM 131. Prerequisite: placement of CHEM 121 or CHEM 131 on the chemistry placement examination, or MATH 114 or placement higher than MATH 114 on the math placement examination.

CHEM 122. General Chemistry II.
3+3, Cr. 4. A continuation of CHEM 121 with an emphasis on descriptive inorganic chemistry. Not open to students with credit for CHEM 116 or CHEM 132. Prerequisite: CHEM 115, 121, or 131.

Chemistry

- CHEM 131. General Chemistry I - Honors.**
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. Not open to students with credit for CHEM 115 or CHEM 121. Prerequisite: placement of CHEM 131 on the chemistry placement examination, or consent of instructor.
- CHEM 132. General Chemistry II - Honors.**
3+3, Cr. 4. A continuation of CHEM 131. Same lecture as CHEM 122, with a more challenging, in-depth laboratory program. Intended for students who are willing to intensify their learning. Recommended for chemistry majors. Not open to students with credit for CHEM 116 or CHEM 122. Prerequisite: CHEM 131 or consent of instructor.
- CHEM 190. Introduction to Chemical Research.**
7 weeks, Cr. 1. An introduction to chemical research methods and literature. A laboratory project is required. Prerequisite: CHEM 121 or 131. S/U grade.
- CHEM 221. Organic Chemistry I.**
3+3, Cr. 4. An introductory survey of the nomenclature, reactions, structures and properties of carbon compounds. Prerequisite: CHEM 116, 122, or 132.
- CHEM 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 reaction mechanisms and complex organic reactions. Prerequisite: CHEM 221.
- CHEM 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 116, 122 or 132 or consent of Chair of the Department.
- CHEM 290. Perspectives on Chemistry.**
Cr. 1-4. Topics related to chemistry. May not be counted toward a major or minor in chemistry.
- CHEM 311. Elementary Physical Chemistry.**
3+3, Cr. 4. A one-semester course in physical chemistry covering elementary thermodynamics and kinetics, together with their applications to various chemical systems. Prerequisite: CHEM 221. Not open to students who have taken CHEM 321.
- CHEM 315. Biochemistry I.**
Cr. 3. Structure and function of proteins, carbohydrates and lipids with particular stress on physical biochemistry and enzyme kinetics. Overview of metabolism with an emphasis on integration and control. Prerequisite: CHEM 222.
- CHEM 316. Biochemistry II.**
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 315.
- CHEM 317. Biochemistry Laboratory.**
0+3, Cr. 1. An introduction to the experimental methods used to characterize biomolecules and biochemical reaction. Prerequisite: CHEM 315 (may be taken concurrently).
- CHEM 321. Physical Chemistry I.**
3+4, Cr. 5. A theoretical study of chemistry involving thermodynamics, kinetics and modern structural concepts. Prerequisites: CHEM 221, MATH 152 or equivalent, PHYS 142. Recommended: CHEM 230
- CHEM 322. Physical Chemistry II.**
4+3, Cr. 5. A continuation of CHEM 321. Prerequisite: CHEM 321.
- CHEM 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 amplifiers) and computer interfacing. Prerequisite: CHEM 311 or 321.
- CHEM 381. Cooperative Education in Chemistry I.**
Cr. 0.5-2. Experience in chemical research with a cooperating employer. Written report required. Prerequisites: CHEM 222 and approval of the Chair of the Department. S/U grade.
- CHEM 390. Topics in Chemistry.**
Cr. 1-4. A study of various topics in chemistry. Prerequisite: dependent upon the topic.
- CHEM 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) or consent of the Chair of the Department.
- CHEM 422. Inorganic Chemistry Laboratory.**
0+4, Cr. 1. Experiments involving structures and reactions of inorganic compounds. Prerequisite: CHEM 421 (may be taken concurrently).

- CHEM 440. Materials Chemistry.**
Cr. 3. An introduction to materials that fall into four broad classifications: electronic materials, polymers, ceramics, and metals, with an emphasis on synthetic and fabrication techniques. Prerequisite: CHEM 222.
- CHEM 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).
- CHEM 460. Quantum Mechanics.**
Cr. 3. The fundamental concepts of quantum mechanics are examined. Topics include state functions and their interpretations, the Schrodinger equation, approximation methods, multielectron atoms and molecules. Prerequisite: CHEM 322 or consent of the instructor.
- CHEM 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. S/U grade. May be repeated beyond 483 for additional credit.
- CHEM 486. Internship in Chemistry.**
Cr. 0.5-2. Students gain experience in chemistry by working at industrial or government laboratories. Written report required. S/U grade. May be repeated for additional credit. Prerequisite: consent of the Chair of the Department.
- CHEM 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. A field component is required. Prerequisite: admission to Teacher Education.
- CHEM 490. The Scientific Endeavor.**
Cr. 3. An exploration of the scientific enterprise involving a study of foundational principles and assumptions of the scientific endeavor, its various methodologies, and its scope and limitations. This will include illustrations from historical case studies and "scientific revolutions". Students will also study the ethical and moral connections between their personal and professional science lives. Prerequisite: junior or senior standing. This course may not be used to fulfill the requirements of a science major. This course may be used to fulfill the Humanities: Philosophy requirement of the General Education Requirements.
- CHEM 493. Seminar in Chemistry.**
Cr. 0. All Chemistry majors are expected to register for this course every semester. Report required in this forum for all those registered for CHEM 495. S/U grade.
- CHEM 494. Premedical Arts Colloquium.**
Cr. 0. (Also offered as BIO 494.) All Premedical Arts students are expected to register for this course every semester. May not be counted for a major or minor. S/U grade.
- CHEM 495. Special Problems in Chemistry**
Cr. 0.5-2. 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 also report orally on research results in CHEM 493. May be repeated for additional credit. S/U grade. Prerequisite: consent of Chair of the Department.
- CHEM 497. Honors Work in Chemistry.**
Cr. 3. See Honors Work, page 54.
- CHEM 498. Honors Candidacy in Chemistry.**
Cr. 3. See Honors Work, page 54.

Chinese and Japanese Studies

Administrative Committee:

Associate Professors Lin (Political Science, Chair), Nelson (Psychology); Assistant Professors Kavanagh (Foreign Languages and Literatures), Raman (Economics), Pati (Theology), Prough (Christ College), Schoer (Chemistry), Whitefield (History); Lecturer Meng (Foreign Languages and Literatures).

Students completing the program in Chinese and Japanese 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 Chinese and Japanese Studies.

Objectives. Programs in Chinese and Japanese Studies provide an opportunity for students to focus their study on this important area of the world, by examining the history, culture, and society of China and Japan, in addition to developing some proficiency in the Chinese or 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 Zhejiang 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 constitutes a major in Chinese and Japanese Studies. A number of these courses may also be counted toward fulfillment of the General Education Requirements 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 220 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 HIST 240 or GLST 150; HIST 341, 342; FLJ 101, 102, 203, and 204 or FLC 101, 102 (or EAST 109 and 110), 203 and 204 (or EAST 209 and 210); FLJ 250 or 251 or EAST 390; POLS 335 or 490 (East Asia); THEO 363; EAST 493; and EAST 499 (3 credits), plus 11-13 credits in elective courses listed below.

Complementary Major. A student fulfilling major field requirements under a Major Option in another field may pursue Chinese and Japanese Studies as a second major. The requirement for the second major is a minimum of 37 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 HIST 240 or GLST 150; HIST 341 or HIST 342; FLJ 101, 102, 203, and 204 or FLC 101, 102 (or EAST 109 and 110), 203 and 204 (or EAST 209 and 210); FLJ 250 or 251 or EAST 390; THEO 363; EAST 493; EAST 499 (3 credits) plus 1-3 credits in elective courses listed below.

Minor. A student fulfilling major field requirements in another field may pursue a minor in Chinese and Japanese Studies. The requirement for the minor is a minimum of 18 credit hours selected from the following list. Courses must include HIST 240 or GLST 150, HIST 341 or HIST 342, FLJ 250 or 251 or EAST 390, 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 Chinese or Japanese language may be counted toward the Chinese and Japanese Studies minor.

EAST ASIAN STUDIES COURSES

ART 311 Topics in the Theory and History of Art: East Asian Topics	3Cr.	EAST 498 Honors Candidacy in Chinese and Japanese Studies	3Cr.
FLC 101 Beginning Chinese I	4Cr.	EAST 499 Colloquium in East Asian Studies	0.5Cr.
FLC 102 Beginning Chinese II	4Cr.		
FLC 203 Intermediate Chinese I	4Cr.	Approval of Schedules. All students taking a major in Chinese and Japanese Studies must have their schedules approved by the Chair of the Administrative Committee at the beginning of each semester.	
FLC 204 Intermediate Chinese II	4Cr.	EAST 109, 110, 209, and 210 are offered only in China, where students attend language classes 15-18 hours per week.	
FLC 305 Advanced Chinese I	4Cr.	These credits may apply toward the general education foreign language requirement.	
FLC 306 Advanced Chinese II	4Cr.		
COMM 390 Topics and Projects: East Asian Topics	1-3Cr.	EAST 109. Intensive Elementary Chinese. Cr. 5. An intensive introduction to the reading, writing, and grammar of the Chinese Language. Usually taken concurrently with East Asia 110.	
ECON 290 Topics in Economics: East Asian Topics	3Cr.	EAST 110. Intensive Elementary Chinese: Conversation. Cr. 5. An intensive course in basic Chinese conversation. Usually taken concurrently with EAST 109.	
ECON 390 Topics in Economics: East Asian Topics	3Cr.	EAST 115. Cultures of China and/or Japan. Cr. 3. An introduction to the cultures of China and Japan, focusing on the traditional roots of contemporary civilization.	
GEO 301 Regional Geography: Asia	3Cr.	EAST 209. Intensive Intermediate Chinese. Cr. 5. An intensive course in the reading, writing, and grammar of the Chinese language. Usually taken concurrently with EAST 210.	
HIST 240 Introduction to East Asian Culture	3Cr.	EAST 210. Intensive Intermediate Chinese: Conversation. Cr. 5. An intensive course in Chinese conversation. Usually taken concurrently with EAST 209.	
HIST 341 Revolution and Its Roots: The Making of Modern China	3Cr.	EAST 309. Intensive Advanced Chinese I. Cr. 5. An intensive course focusing on advanced training in grammar and writing. Usually taken concurrently with EAST 310. Offered only in Hangzhou. Prerequisite: FLC 204.	
HIST 342 Tragedy and Triumph: The Making of Modern Japan	3Cr.	EAST 310. Intensive Advanced Chinese II. Cr. 5. An intensive course focusing on advanced training in reading and verbal expression. Usually taken concurrently with EAST 309. Offered only in Hangzhou. Prerequisite: FLC 204.	
HIST 390 Topics in History: East Asian Topics	3Cr.	EAST 386. Internship in Chinese and Japanese Studies. Cr. 1-4. A formal internship in an institution in China or Japan or the U.S. engaging in East Asia-related activities. Internships in China or Japan may require competency in the language of that country. This course requires an approved job description, an evaluation from the employers, and submission of a final written report. S/U grade. May be repeated for additional credit. Prerequisite: Chair's approval required.	
HIST 393 History through Film (East Asian Topics)	3Cr.		
HIST 492 Reading and Discussion Seminars: East Asian Topics	2-3Cr.		
FLJ 101 Beginning Japanese I	4Cr.		
FLJ 102 Beginning Japanese II	4Cr.		
FLJ 203 Intermediate Japanese I	4Cr.		
FLJ 204 Intermediate Japanese II	4Cr.		
FLJ 250 Topics in Japanese Literature and Fine Arts	3Cr.		
FLJ 251 Introduction to Japanese Literature	3Cr.		
FLJ 305 Advanced Japanese I	4Cr.		
FLJ 306 Advanced Japanese II	4Cr.		
FLJ 495 Supervised Reading and Research in Japanese	1-4Cr.		
MUS 421 Pro-Seminar in Music: East Asian Topics	2-3Cr.		
PHIL 220 Non-Western Philosophy	3Cr.		
PHIL 290 Philosophic Topics: East Asian Topics	3Cr.		
POLS 335 Politics of Developing States	3Cr.		
POLS 490 Seminar in Political Science: East Asian Topics	2-3Cr.		
PSY 390 Special Topics in Psychology (Asia Topics)	3Cr.		
THEO 360 Topics in the History of Religions: East Asian Topics	3Cr.		
THEO 363 Religions of China and Japan	3Cr.		
THEO 364 The Buddhist Tradition	3Cr.		
THEO 366 Religion in Japanese Culture	3Cr.		
THTR 334 Theatre of the Non-Western World: Asia	3Cr.		
EAST 109 Intensive Elementary Chinese	5Cr.		
EAST 110 Intensive Elementary Chinese	5Cr.		
EAST 115 Cultures of China and/or Japan	3Cr.		
EAST 209 Intensive Intermediate Chinese	5Cr.		
EAST 210 Intensive Intermediate Chinese	5Cr.		
EAST 309 Intensive Advanced Chinese	5Cr.		
EAST 310 Intensive Advanced Chinese	5Cr.		
EAST 386 Internship in Chinese and Japanese Studies	1-4Cr.		
EAST 390 Topics in East Asian Culture	3Cr.		
EAST 395 Chinese Culture and Civilization	3Cr.		
EAST 493 East Asian Senior Seminar	3Cr.		
EAST 495 Supervised Reading and Research	1-3Cr.		
EAST 497 Honors Work in Chinese and Japanese Studies	3Cr.		

Chinese and Japanese Studies

EAST 390. Topics in East Asian Culture.

Cr. 3. A study of particular topics related to issues in East Asian culture. Topics include Human and Divine in China, Work and Contemplation in Buddhism and Christianity, and Health and Healing: East and West. One topic is generally offered once a year and is generally cross-listed with CC 300 or CC 325.

EAST 395. Chinese Culture and Civilization.

Cr. 3. An interdisciplinary study of key aspects of Chinese culture and civilization. Taught in English. May be used to fulfill the Humanities: Fine and Performing Arts 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.

EAST 497. Honors Work in Chinese and Japanese Studies.

Cr. 3. See Honors Work, page 54.

EAST 498. Honors Candidacy in Chinese and Japanese Studies.

Cr. 3. See Honors Work, page 54.

EAST 499. Colloquium in Chinese and Japanese Studies.

Cr. 0.5. This course contains presentations by students, faculty, and guest speakers on current topics in Chinese and Japanese Studies. Chinese and Japanese Studies majors must enroll each semester during their sophomore, junior, and senior years. Seniors will be required to present their senior thesis. Attendance is encouraged for all minors and freshmen majors in the Chinese and Japanese Studies program. S/U grade only. May be repeated for a maximum of 3 credits.

Communication

Associate Professors Kocher (Chair), Neff; Lecturers Bailey, Powell, Steinwart; Visiting Assistant Professor Paupore.

The Department of Communication focuses on teaching the process of communication as it applies to the areas of study it represents: communication law, new media-journalism, public and corporate communication, public relations, television-radio and speech/debate. 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.

Major. A major consists of 30 credit hours in one of the following major areas as specified. Student transcripts will reflect that major, not Communication. The 386 and 490 courses required for each of the majors must be from that major area. Students may not have a double major within the department.

Communication Law: Complete COMM 100, 121, 269, 301, 302, 386, 490, and 9 additional COMM credits in any of the areas, including General Communication.

New Media–Journalism: Complete COMM 100, 110, 121, 230, 261, 262, 320, 330, 386, and 490.

Public and Corporate Communication: Complete COMM 210, 310, 386, 410, 6 credits of 490, and 12 additional COMM credits in any of the areas, including General Communication. In addition, either the Liberal Arts Business Minor (see page 239) or the Business Administration Minor (see page 235) must be completed.

Public Relations: Complete COMM 100, 265, 368, 374, 375, 376, 386, 490, and 6

additional COMM credits in any of the areas, including General Communication.

Television–Radio: Complete COMM 100, 198, 250, 251, 353, 380, 385, 386, 450, and 490.

Minor. A Communication minor consists of 15 credit hours in one of the department major areas (Communication Law, New Media–Journalism, Public and Corporate Communication, Public Relations, or Television–Radio).

Public Speaking and Debate Minor. Students electing a minor in Public Speaking and Debate must complete a total of 15 credit hours selected as follows: COMM 145, 243, 247, 344, and 351. 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 departmental major or minor 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 56.

Degree. Students completing one of the five department majors 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 departmental advisor at the beginning of each semester.

SPECIAL OPPORTUNITIES

Television/Radio Studio. The Department teaches all television and radio classes in its two teleproduction studios, digital sound suite, and digital video editing lab. The studios are fully equipped for all levels of television and radio producing and

provide a quality laboratory experience. Students are also placed as interns in area television, radio and cable stations, and at video production companies. Digital nonlinear video and audio editing facilities interface with the studios and are available for student video and audio work.

Student Organizations. The department sponsors a campus chapter of the National Communication Association's Lambda Pi Eta honor society and has active student chapters of the Association for Women in Communications and the Public Relations Student Society of America (PRSSA). The department also advises Valparaiso University's Pre-Law Society, an organization for students interested in pursuing legal careers, and sponsors Valparaiso University's Mock Trial and Negotiation teams, which compete against schools from across the country.

GENERAL COMMUNICATION COURSES

- COMM 100. Survey of Communication Fields.**
Cr. 3. This survey course views communication from a critical cultural perspective. Students are introduced to the processes of communication as they operate within a global context. Students learn oral and written formats including research design for such specific areas of communication as public communication, mass media (broadcast and print), public relations, and Web technology. This course is primarily intended for communication majors as preparation for more advanced coursework in the department.
- COMM 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 speechmaking experiences.
- COMM 145. Interpersonal Communication.**
Cr. 3. A study of human communication dealing with intrapersonal, dyadic, small group and nonverbal areas. Students participate in a variety of semi-structured and pre-structured communication events including presentation skill development.
- COMM 243. Public Communication.**
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.

- COMM 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.
- COMM 280. Geography of Cyberspace**
Cr. 3. (Also offered as GEO 280.) A course exploring the geographical dimensions of the Internet, media, and telecommunications. Includes consideration of urban telecommunication, online community, and virtual spaces.
- COMM 344/544. Argumentation.**
Cr. 3. This course includes structured experiences in the research and development of argument, case construction, refutation and evidence. Includes preparation for participation in competitive debate team events.
- COMM 350. Political Communication.**
Cr. 3. This course establishes a communication perspective of a communicative event or series of events - the political election campaign. Fundamental theoretical concerns, principles, and practices will be examined to provide a broader framework for renewed understanding of and interest in the political system.
- COMM 351. Human Influence in Communication.**
Cr. 3. A study of philosophical, social, psychological, and ethical language use within the field of communication. This course employs language as a tool for discovery, insight, and sharing meanings.
- COMM 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.
- COMM 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.
- COMM 386. Internship in Communication.**
Cr. 3. Internships in which students may intensively study a particular area of communication. Prerequisite: consent of the department Internship Coordinator. Open to declared departmental majors or minors only. Students must adhere to internship requirements described on the department's Web site. S/U grade only.
- COMM 490. Topics in Communication.**
Cr. 3. In-depth study of a particular topic (e.g., Parliamentary Debate, Political Campaigns). Prerequisite: junior standing.

- COMM 495. Independent Study.
Cr. 1-3. Specific topics based on interests of students and faculty. Students must submit a successful proposal to an appropriate faculty member prior to registering for this course. May be repeated if topics are different.
- COMM 497. Honors Work in Communication.
Cr. 3. See Honors Work, page 54.
- COMM 498. Honors Candidacy in Communication.
Cr. 3. See Honors Work, page 54.

COMMUNICATION LAW COURSES

- COMM 121. Communication Law.
Cr. 3. An introductory course studying the history of the American legal system and its evolution into the information age. Students will also address the ethical issues that arise in all societies governed by rule of law. Prerequisite: COMM 100.
- COMM 269. Intermediate Communication Law.
Cr. 3. A comprehensive study of the major legal topics related to the communications field. The course includes examination of legal and ethical issues posed by the First Amendment, Journalist's Privilege, Obscenity, Fair Trial, and Copyright Law. Prerequisite: COMM 121 or consent of instructor.
- COMM 301. Defamation and Privacy in the Media.
Cr. 3. This course will provide students the opportunity to intensively study defamation and invasion of privacy - two areas that substantially affect journalists. Prerequisite: COMM 269.
- COMM 302. Communication Law and the Internet.
Cr. 3. Study of the major legal topics that affect those who use the Internet, whether for commerce or pleasure. These include, jurisdiction, obscenity, defamation, copyright, trademark, and first amendment rights. Prerequisite: COMM 269 or COMM 121.
- COMM 386. Internship in Communication Law.
Cr. 3. Internships in which students may intensively study a particular area of communication. Prerequisite: consent of the department Internship Coordinator. Open to declared departmental majors only. Students must adhere to internship requirements described on the department's Web site. S/U grade only.
- COMM 490. Topics in Communication Law.
Cr. 3. In-depth study of a particular topic (e.g., Advanced Media Law, Intellectual Property Issues in Communication). Prerequisite: junior standing.

NEW MEDIA–JOURNALISM COURSES

- COMM 110. Introduction to Internet Communication.
Cr. 3. A course in the history and development of the Internet as a Communication medium. Taught online, but some on-campus sessions are required.
- COMM 230. Desktop Publishing.
0+6, Cr. 3. (Also offered as ART 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.
- COMM 261. Media Writing Styles.
Cr. 3. Survey of media writing styles including Web, print, and broadcast in a deadline environment Prerequisites: COMM 100, CORE 110 and 115.
- COMM 262. Content Research and Reporting.
Cr. 3. An overview of reporting practices for media, including breaking news, research, and investigative reporting. Prerequisite: COMM 261.
- COMM 286. WVUR/Torch Practicum.
Cr. 1. Credit for substantive work in an approved position on the staff of the campus radio station, WVUR, or the campus newspaper, The Torch. Work may include news writing and editing, programming, traffic, production, promotion, design, and other approved assignments. Offered every semester. Prerequisite: consent of Practicum Supervisor. S/U grade only. May be repeated for a total of 3 credit hours.
- COMM 320. Internet News Delivery.
Cr. 3. An examination of best practices for delivering news via the World Wide Web.
- COMM 330. Advanced Desktop Publishing.
Cr. 3. Develops proficiency in use of advanced software for desktop publishing and web design. Prerequisite: COMM 230.
- COMM 386. Internship in New Media–Journalism.
Cr. 3. Internships in which students may intensively study a particular area of communication. Prerequisite: consent of the department Internship Coordinator. Open to declared departmental majors only. Students must adhere to internship requirements described on the department's Web site. S/U grade only.
- COMM 490. Topics in New Media–Journalism.
Cr. 3. In-depth study of a particular topic (e.g., Feature Writing, Investigative Reporting, Broadcast News). Prerequisite: junior standing.

PUBLIC AND CORPORATE COMMUNICATION COURSES

- COMM 210. Organizational Communication.
Cr. 3. Theory and practice of communication in work settings and groups.
- COMM 310/510. International Communication.
Cr. 3. This course examines communication in global settings through examination of contrasting settings, practices, and objectives in various countries. Develops research skills in qualitative communication analysis, including content analysis.
- COMM 410/512. Integrated Communication.
Cr. 3. An examination of contemporary Communication strategies in public and private settings which combine associated areas such as public relations, marketing and advertising. Prerequisite: junior or senior standing.
- COMM 386. Internship in Public and Corporate Communication.
Cr. 3. Internships in which students may intensively study a particular area of communication. Prerequisite: consent of the department Internship Coordinator. Open to declared departmental majors only. Students must adhere to internship requirements described on the department's Web site. S/U grade only.
- COMM 490. Topics in Public and Corporate Communication.
Cr. 3. In-depth study of a particular topic (e.g., corporate communication case studies, not-for-profit communication). Prerequisite: junior standing.

PUBLIC RELATIONS COURSES

- COMM 265. Principles of Public Relations.
Cr. 3. Overview of the history, development, principles and practices of public relations, investigation of public relations ethics, relationships and roles in communication and society; case studies and application of public relations research and practices. Prerequisite: COMM 100.
- COMM 368. Public Relations Theory in Practice.
Cr. 3. Course emphasizes critical thinking, oral and writing skills, the presentation and organization of artifacts and data, and research-based presentation with experience in client management. Offered as an online course. Prerequisite: COMM 265.
- COMM 374. Advanced Public Relations.
Cr. 3. Advanced study with emphasis on the relationship between theory and practice, strategic planning, problem solving, and creativity within a case study format. Prerequisite: COMM 265 or consent of the Chair of the Department.
- COMM 375. Community Relations.
Cr. 3. This course examines the organizational role of communication within a global context. Specifically addressed is the professional role of public relations in the development of community relations emphasizing particularly the relationships between theory and practice. Community relations are examined within a multicultural context. Prerequisite: junior standing.
- COMM 376. Crisis Communication.
Cr. 3. Students are exposed to crisis case studies, have contact with public relations professionals managing crisis situations, and are connected with the necessary theory to evaluate the practice of crisis communication. Prerequisite: junior standing.
- COMM 386. Internship in Public Relations.
Cr. 3. Internships in which students may intensively study a particular area of communication. Prerequisite: consent of the department Internship Coordinator. Open to declared departmental majors only. Students must adhere to internship requirements described on the department's Web site. S/U grade only.
- COMM 490. Topics in Public Relations
Cr. 3. In-depth study of a particular topic (e.g., public relations audits, public relations research). Prerequisite: junior standing.

TELEVISION–RADIO COURSES**COMM 198. Non-Linear Video Editing.**

Cr. 3. This course will introduce basic principles of digital non-linear editing. The course surveys digital video formats and applications. Students produce projects using computer editing and special effects. Concepts include digitizing video, editing, and compression.

COMM 250. Radio and Audio Production.

Cr. 3. Hands-on practical course in radio production techniques. Examines the practice of audio production and highlights the applications to production and on-air techniques. The emphasis is on experiences through production exercises and projects. Prerequisite: COMM 100.

COMM 251. Introduction to Broadcast Production.

Cr. 3. A practical introduction and application of television studio production and directing that determine aesthetic quality. Techniques and concepts of video field production and video editing are introduced. Students produce studio-based projects which emphasize scripting, camera operations, and on-camera presentation. Prerequisite: COMM 100 and 198.

COMM 353. Broadcast, Internet and Cable Programming.

Cr. 3. Examination of the principles and practices of programming for television, the Internet, cable, and radio. Analysis of the theories and practices of programming, including relationships to audience, promotion, advertising, and public relations.

COMM 380. Television Producing and Directing.

Cr. 3. The exploration of strategies and methods for all areas of field production including audio recording, camera operations, lighting, and production planning, with emphasis on proficiency with cameras and digital nonlinear editing systems. Projects include preparation of materials for resume, student productions, and possible on/off-campus use. Prerequisite: COMM 251 or consent of Chair of the Department.

COMM 385. Television Field Production.

Cr. 3. A workshop in which students are offered the opportunity to produce and direct television field productions while developing specialized production skills (e.g., camera, sound design, lighting, and technical direction). The course covers the basic steps of pre-production, production, and post-production and introduces students to the basic principles of videography. Projects will be recorded and edited on digital equipment. Projects vary in format: short and feature-length videos, public service announcements, special features, and music videos. Prerequisite: COMM 251 or consent of department instructor.

COMM 386. Internship in Television–Radio.

Cr. 3. Internships in which students may intensively study a particular area of communication. Prerequisite: consent of the department Internship Coordinator. Open to declared departmental majors only. Students must adhere to internship requirements described on the department's Web site. S/U grade only.

COMM 450. Documentary Production.

Cr. 3. A workshop for those students interested in documentary style video production. Emphasis is placed on the production of video documentaries. Projects include productions shot and edited on broadcast digital equipment. The technical skills of producing, directing, writing, editing, camera, lighting, and sound, pertaining to documentary productions, are examined. Projects vary from campus-based productions to off-campus projects approved by the instructor. Prerequisite: COMM 198 and 251, or consent of instructor.

COMM 490. Topics in Television–Radio.

Cr. 3. In-depth study of a particular topic (e.g., media stereotypes, sports broadcasting). Prerequisite: junior standing.

Economics

Associate Professors Raman, Shingleton (Chair); Assistant Professors Devaraj, Saros.

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 IDS 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 and 325. Also required is a minor in mathematics including MATH (124, 131, or 151), (122, 132, or 152), 240 and 320 (or an approved alternative).

General Economics Minor. A minimum of 18 credit hours in economics constitutes a minor. Courses must include ECON 221, (222 or 223), one of (321, 322, or 325) and one additional course selected from 300 or above.

ECON 136 and ECON 486 will not count towards fulfilling the minimum major or minor requirements.

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.

ECON 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. May be used to fulfill the Cultural Diversity course component of the General Education Requirements. ECON 136 will not count towards fulfilling the minimum major or minor requirements.

ECON 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. May be used in partial fulfillment of the Social Analysis component of the General Education Requirements.

ECON 221. Principles of Economics-Micro.

Cr. 3. An introductory study of the central functions and problems of an economic system with emphasis on the determinants of consumer demand, producer supply and their interactions in the marketplace.

ECON 222. Principles of Economics-Macro.

Cr. 3. An introduction to macroeconomic analysis with emphasis on national income, consumer spending, investment, government and monetary aspects.

ECON 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.

- ECON 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. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.
- ECON 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 result in capitalism, socialism, anarchism, etc. as the solution to economic problems. Prerequisite: ECON 221 or ECON 222 or ECON 223.
- ECON 290. Topics in Economics.**
Cr. 3. A course in which a special topic in economics is given intensive study. Topics descriptions and prerequisites will be announced in advance. May be repeated for credit if topics are different. Prerequisites vary depending on the topic chosen.
- ECON 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.
- ECON 322. Intermediate Macro-Economic Theory.**
Cr. 3. A critical examination of theories of national income determination and of techniques for measuring and analyzing aggregate economic activity. Prerequisite: ECON 222 or ECON 223.
- ECON 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.
- ECON 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, (ECON 222 or 223), MATH 240 or IDS 205 or equivalent.
- ECON 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 (ECON 222 or 223).
- ECON 330/530. Industrial Organization.**
Cr. 3. The analysis of the economic factors underlying the structure, conduct and performance of American industry. Prerequisite: ECON 221.
- ECON 333. Economics of Labor.**
Cr. 3. The approach 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.
- ECON 335/535. 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. Prerequisite: ECON 221.
- ECON 336/536. 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 223, and junior standing. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.
- ECON 337/537. 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 or 223.
- ECON 339/539. 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 or 223.
- ECON 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 223.

Economics

ECON 390/590. Topics in Economics.

Cr. 3. A course in which a special topic in economics is given intensive study. Topics, descriptions, and prerequisites will be announced in advance. May be repeated for credit if topics are different. Prerequisite: ECON 221 and 222.

ECON 486. Internship in Economics.

Cr. 1-3. Direct, supervised experience in a cooperating business, government agency or service agency requiring the use of a student's economics knowledge. Some internships are in conjunction with off-campus programs such as the Washington Semester Program. Prerequisite: consent of the Chair of the Department. ECON 486 will not count towards fulfilling the minimum major or minor requirements.

ECON 493. Seminar in Applied Statistics.

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

ECON 495. Independent Study in Economics.

Cr. 1-3. Independent study to be approved by the Chair and the economics advisor.

ECON 497. Honors Work in Economics.

Cr. 3. See Honors Work, page 54.

ECON 498. Honors Candidacy in Economics.

Cr. 3. See Honors Work, page 54.

Education

Professor Brandhorst; Associate Professors Acton, Cole, Dudzinski, Reiser, Riffel, Westrick (Chair); Assistant Professors Brauer, DeMik, Gillispie, Grabarek, Harrison, Honig, P. Tougaw; Instructor Johnston.

The Education Department offers programs of study leading to licensure for elementary, middle school and high school teaching. Teacher candidates may also add a content area in special education (mild needs).

Public Disclosure Information Required by Federal Law. As required by federal law Title II, Higher Education Act, Section 207 (f)(1)) passed in October 1998, institutions of higher education with teacher preparation programs are required annually to disclose pass rate information of program completers from the previous year. Valparaiso University's teacher education program completers for the 2005-2006 academic year have pass rates as follows:

Type of Assessment	No.	Passed	VU Rate	IN Rate
Basic Skills	80	74	93%	99%
Professional Knowledge				
Elementary Education	34	34	100%	97%
Academic Content				
Area	69	68	99%	97%
Reading Specialist	33	33	100%	100%

Copies of the full disclosure report submitted to the State of Indiana in March of 2006 are available upon request in either the Office of University Relations or the Education Department Office.

Accreditation. Valparaiso University is accredited by the Indiana Professional Standards Board (IPSB) as a teacher education institution to meet Indiana licensure requirements, and the National Council for Accreditation of Teacher Education (NCATE) at both undergraduate and graduate levels to prepare elementary, middle school, and high school teachers. Valparaiso University also is a member of the American Association of Colleges for Teacher Education (AACTE) and the Indiana Association of Colleges for Teacher Education (IACTE).

Licensure. Students must meet Indiana state teacher licensure and education program requirements.

All students who expect to obtain a teaching licence and have not been admitted to the Teacher Education Program should consult the Department of Education Office by completion of their freshman year to assure that licensure requirements will be met. The mere completion of the prescribed courses outlined by the Education Department does not guarantee that the student will be recommended for licensure or a teaching position.

For a listing of all programs offered see page 51.

Elementary and Middle School.

Students who seek licensure as an elementary or middle level teacher complete the requirements of the Bachelor of Science in Education degree with a major either in Elementary Education or Middle Level Education.

High School. Students seeking high school licensure declare a complementary major in Secondary Education and an academic major in another department. The academic teaching major in which students are licensed may include courses that do not apply to the academic major. The requirements of an academic major and a teaching major may be different.

A teacher education advisor is assigned to every secondary education student. See "Academic Advising" section on page 41.

Only students preparing to meet Adolescence/Young Adult (Secondary) Education licensure requirements declare complementary majors in education; the secondary education complementary major must be declared in the Registrar's Office before admission to Teacher Education. For specific requirements of a teaching minor, consult your education advisor.

Elementary Education: Early/Middle Childhood

Completion of the degree requirements with a major in Early/Middle Childhood (elementary) education leads to the Bachelor of Science in Education degree. The General Education Requirements for this degree are found on page 48. The education and other requirements are listed below.

Education Requirements

ED 203 Introduction to Teaching	3 Cr.
ED 204 Educational Psychology	3 Cr.
ED 305 Computers in Education	2 Cr.
ED 323 Methods of Science Education	3 Cr.
ED 324 Methods of Teaching Mathematics in the Elementary School	3 Cr.
ED 327 Methods of Teaching Social Studies in the Elementary School	3 Cr.
ED 328 Foundations of Literacy Development	3 Cr.
ED 361 Literacy Instruction and Assessment	4 Cr.
ED 370 Home, School, and Community Relationships	3 Cr.
ED 385 Admission to the Professional Semester	0 Cr.
ED 466 Literacy Curriculum Design	4 Cr.
One of:	
ED 439 Supervised Teaching in the Elementary Grades	12 Cr.
SPED 449 Supervised Teaching in General and Special Education	12 Cr.
ED 485 Senior Seminar: Foundations of Education	2 Cr.
Total Education Requirements	45 Cr.

Other course requirements:

Oral Communication (one course)	3 Cr.
COMM 145 Interpersonal Communication	
COMM 243 Public Communication	
Advanced Composition (one course)	3 Cr.
ENGL 300 Introduction to Professional Writing	
ENGL 321 Intermediate Composition	
ENGL 380 Topics in Writing	
ENGL 423 Short Story Writing	
ENGL 478 Literature for Children	3 Cr.
Conservation	3 Cr.
One of:	
GEO 260 Conservation of Natural Resources	
BIO 250 Human Environmental Biology	

PSY 110 General Psychology	3 Cr.
SPED 440 Learning Exceptionalities	3 Cr.
PE 289 Physical Education and Health Methods for Elementary Teachers	2 Cr.
ED 200 The Fine Arts Experience	3 Cr.
MATH 211 Laboratory in Elementary Mathematics I	0 Cr.
MATH 212 Laboratory in Elementary Mathematics II	1 Cr.
MATH 213 Mathematics for Elementary Teachers I	4 Cr.
MATH 214 Mathematics for Elementary Teachers II	4 Cr.
Total Other Requirements	32 Cr.

In addition to the above requirements, the student must present sufficient electives to earn the 124 credit hours required for graduation.

Additional Teaching Content Areas.

Students who are interested in specific information about the requirements for additional content areas should contact their Education Department advisor.

Four-Year Planning for Elementary Education. Students should organize their four-year plans around the following blocks and sequence of professional education courses and checkpoints. Additional requirements in education and general education can be planned in other semesters and as additional courses in some of these blocks.

Block 1

ED 203 Introduction to Teaching	3 Cr.
ED 204 Educational Psychology	3 Cr.
ED 328 Foundations of Literacy Development	3 Cr.

After Block 1:

Application for Admission to Teacher Education Checkpoint 1	
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Block 2 - Junior Block

ED 305 Computers in Education	1 Cr.
ED 323 Methods of Science Education	3 Cr.
ED 324 Methods of Teaching Mathematics in the Elementary School	3 Cr.
ED 327 Methods of Teaching Social Studies in the Elementary School	3 Cr.
ED 361 Literacy Instruction and Assessment	4 Cr.

Block 3

- ED 466 Literacy Curriculum Design 4 Cr.
- SPED 440 Learning Exceptionalities 3 Cr.
- Other ED courses

After Block 2:

- Application for Admission to the Professional Semester Checkpoint 2

Block 4 - Professional Semester

- ED 439 or SPED 449 Student Teaching 12 Cr.
- ED 485 Senior Seminar 2 Cr.
- Checkpoint 3

Elementary education students who would like to study a foreign language and/or attend a study abroad semester should plan their course of study in close collaboration with the Education Department advisor from the beginning of their first semester at Valparaiso University.

Minor in Special Education. To earn a minor in Special Education, students must earn a minimum of 21 credit hours in SPED classes for the elementary developmental level. Courses must include SPED 347, 348, 441, 444, 445, 446, 450, 451, and 466.

Supervised teaching (SPED 449) includes one half semester in a general education classroom and the other half in a special education setting. SPED 440 does not count toward this minor because it is a required course for all pre-service teachers. Since this minor leads to licensure (content area: mild intervention) and several required standards are imbedded in additional education courses, the special education minor is open to education majors only.

Middle Level Education: Middle School/Junior High School

Completion of the degree requirements with a major in Middle Level Education leads to the Bachelor of Science in Education degree. For the General Education Requirements for this degree, see page 48. The education and other requirements are listed below.

Education Requirements

- ED 203 Introduction to Teaching 3 Cr.
- ED 204 Educational Psychology 3 Cr.
- ED 305 Computers in Education 2 Cr.
- ED 370 Home, School, and Community Relationships 3 Cr.

- ED 385 Admission to the Professional Semester 0 Cr.
- ED 460 Reading in the Content Areas 3 Cr.
- ED 475 Teaching and Learning for Early Adolescence Generalist Candidates 3 Cr.
- ED 478 Integrated Curriculum with Special Methods for Middle Level Education 3 Cr.
- One of:
 - ED 479 Supervised Teaching in Middle School Grades 12 Cr.
 - SPED 449 Supervised Teaching in General and Special Education 12 Cr.
- ED 485 Senior Seminar: Foundations of Education 2 Cr.
- Total Education Requirements 34 Cr.

Content Area Concentrations

Candidates choose two from the following four areas, each of which requires a minimum of 18 credit hours:

- Language Arts 18 Cr.
- Social Studies 18 Cr.
- Science 18 Cr.
- Mathematics 18 Cr.
- Total Concentration Requirements 36 Cr.

Other Requirements

- Oral Communication 3 Cr.
 - One of:
 - COMM 145 Interpersonal Communication
 - COMM 243 Public Communication
- Advanced Composition 3 Cr.
 - One of:
 - ENGL 300 Introduction to Professional Writing
 - ENGL 321 Intermediate Composition
 - ENGL 380 Topics in Writing
 - ENGL 423 Short Story Writing
- MATH 211 Laboratory in Elementary Mathematics I 0 Cr.
- MATH 213 Mathematics for Elementary Teachers I 4 Cr.
- PSY 110 General Psychology 3 Cr.
- SPED 440 Learning Exceptionalities 3 Cr.
- Total Other Requirements 16 Cr.

In addition to the above requirements, the student must present sufficient credits to earn the 124 credits required for graduation.

Additional Teaching Content Areas.

Students who are interested in specific information about the requirements for additional content areas should contact their Education Department advisor. Middle Level education students who would like to study a foreign language should plan their course of

study in close collaboration with the Education Department advisor from the beginning of their first semester at Valparaiso University.

Four-Year Planning for Middle Level Education. Students should organize their four-year plans around the following blocks and sequence of professional education courses and checkpoints. Additional requirements in education and general education can be planned in other semesters and as additional courses in some of these blocks.

Block 1

- ED 203 Introduction to Teaching . 3 Cr.
- ED 204 Educational Psychology . 3 Cr.

After Block 1:

- Application for Admission to Teacher Education
- Checkpoint 1

Block 2 - Junior Block

- ED 305 Computers in Education . 1 Cr.
- ED 460 Reading in the Content Areas 3 Cr.
- ED 475 Teaching and Learning for Early Adolescence Generalist Candidates 3 Cr.
- ED 478 Integrated Curriculum with Special Methods for Middle Level Education 3 Cr.

After Block 2:

- Application for Admission to the Professional Semester
- Checkpoint 2

Block 3 - Professional Semester

- One of:
 - ED 479 Supervised Teaching in Middle School Grades 12 Cr.
 - SPED 449 Supervised Teaching in General and Special Education 12 Cr.
 - ED 485 Senior Seminar: Foundations of Education 2 Cr.
- Checkpoint 3

Minor in Special Education. To earn a minor in Special Education, middle level education students must earn a minimum of 21 credit hours in SPED classes for the middle level developmental level. Courses must include SPED 347, 348, 441, 444, 447, 450, 451, 489, and SPED 466. Supervised teaching (SPED 449) includes one half semester in a general education classroom and the other half in a special education setting. SPED 440 does not count toward this minor because it is a

required course for all pre-service teachers. Since this minor leads to licensure (content area: mild intervention) and several required standards are imbedded in additional education courses, the special education minor is open to education majors only.

**Secondary Education:
Adolescence/Young Adult**

Students seeking to teach in a high school must major in one of the content areas listed on page 51 and approved for licensure.

Advising. Before admission to Teacher Education, high school teacher candidates must register as a secondary education complementary major and consult with their Education Department advisor about programs leading to recommendations for teacher licensure. Students should regularly consult both their education and academic major advisors prior to registration each semester.

Requirements. Undergraduate students preparing to obtain a high school teaching license should complete requirements for education, appropriate degrees in their academic majors and their teaching major, and General Education requirements for their Bachelor of Arts or Bachelor of Science degree. The Education Department has the following two sets of requirements for secondary education majors:

Education Requirements

- ED 203 Introduction to Teaching 3 Cr.
- ED 204 Educational Psychology 3 Cr.
- ED 305 Computers in Education 2 Cr.
- ED 370 Home, School, and Community Relationships 3 Cr.
- ED 385 Admission to the Professional Semester 0 Cr.
- ED 457 Principles and General Methods of Teaching in Secondary Schools 3 Cr.
- ED 460 Reading in the Content Areas . 3 Cr.
- ED 489 Special Methods in the Academic Courses in Secondary Education 3 Cr.
- One of:
 - ED 459 Supervised Teaching in the Secondary School Subjects . . 12 Cr.
 - SPED 449 Supervised Teaching in General and Special Education 12 Cr.
 - ED 485 Senior Seminar: Foundations of Education 2 Cr.
- Total Education Requirements 34 Cr.

Other Requirements

Oral Communication	3 Cr.
One of:	
COMM 145 Interpersonal Communication	
COMM 243 Public Communication	
PSY 110 General Psychology	3 Cr.
SPED 440 Learning Exceptionalities	3 Cr.
Total Other Requirements	9 Cr.

In addition to the above requirements, the student must present sufficient credits to earn the 124 credits required for graduation.

Scheduling Note: ED 489, Special Content Methods courses are only offered once a year and must be completed prior to the professional semester. In addition to these methods courses, students are strongly urged to take or audit the Special Methods 489 course in the teaching minor area. If students elect to audit this course, they must meet all expectations of the instructor for attendance, assignments, and participation.

Note for Transfer Students: Students who transfer to Valparaiso University and do not take CORE 110 and CORE 115 must have 6 credits of composition or other writing courses and a 3-credit course in history.

Content Area Concentration. A content area concentration is required of all high school teacher candidates. Note that a content area concentration is not the same as an academic major in that it may have additional requirements.

Four-Year Planning for Secondary Education. Students should organize their four-year plans around the following sequence of professional education courses and checkpoints.

Freshman/Sophomore Level Courses

ED 203 Introduction to Teaching	3 Cr.
ED 204 Educational Psychology	3 Cr.
ED 305 Computers in Education	2 Cr.

After Freshman/Sophomore Courses:

Application for Admission to Teacher Education	
Checkpoint 1	

Junior Level Courses

ED 370 Home, School, and Community Relationships	3 Cr.
ED 457 Principles and General Methods of Teaching in Secondary Schools	3 Cr.
ED 460 Reading in the Content Areas	3 Cr.

ED 489 Special Methods in the Academic Courses in Secondary Education	3 Cr.
SPED 440 Learning Exceptionalities	3 Cr.

After Junior Courses:

Application for Admission to the Professional Semester	
Checkpoint 2	

Senior Level Courses - Professional Semester

One of:	
ED 459 Supervised Teaching in the Secondary School Subjects	12 Cr.
SPED 449 Supervised Teaching in General and Special Education	12 Cr.
ED 485 Senior Seminar: Foundations of Education	2 Cr.
Checkpoint 3	

Minor in Special Education. To earn a minor in Special Education, secondary education students must earn a minimum of 21 credit hours in SPED classes for the secondary developmental level. Courses must include SPED 347, 348, 441, 444, 448, 450, 451, 489, and SPED 466. Supervised teaching (SPED 449) includes one half semester in a general education classroom and the other half in a special education setting. SPED 440 does not count toward this minor because it is a required course for all pre-service teachers. Since this minor leads to licensure (content area: mild intervention) and several required standards are imbedded in additional education courses, the special education minor is open to education majors only.

THE TEACHER EDUCATION PROGRAM

Admission (Checkpoint 1). Admission to the program is the first of three checkpoints in the performance assessment process in education. Students may obtain the application packet in ED 203 or from the Professional Development and Placement Office. Students' applications must be submitted to the Placement Office of the Education Department after completion of ED 203, ED 204, and COMM 145 (or 243) and when all other admissions criteria have been fulfilled. The application process may take one semester.

The criteria for admission to education are:

1. Grade point average.
Applicants must have a minimum of 12 credit hours at Valparaiso University, a

- cumulative grade point average of 2.50 or higher in all course work taken at Valparaiso University, and at least 2.0 in each required course taken in the Education Department.
2. Communication grade point average. Applicants must have a grade point average of 2.50 or better in CORE 110, 115, and COMM 145 (or 243) with no individual course below a "C". Students are expected to maintain acceptable, professional level standards of communication. All education professors monitor, evaluate, and provide feedback to students on their communication skills in all education courses. If deficiencies in written or oral communication are noted, applicants may be required to take remedial steps under the direction of their advisor.
 3. Basic Skills Test. Applicants to the Teacher Education program must pass the Praxis I test which is administered at national testing sites, including Valparaiso University, eight times during the academic year and at private companies on a more regular basis. Students are responsible for registering and paying the fees for the test and for designating that scores be sent to the Valparaiso University Education Department. Scores typically take a minimum of six weeks to arrive at Valparaiso University. Information about test registration and administration will be furnished to students at a Teacher Education information meeting and in ED 203; it is also available in the Professional Development and Placement Office. Passing scores are set by the state of Indiana and can be found on the web site of the Indiana Department of Education <<http://www.doe.state.in.us/>>.
 4. Character/Dispositions. Applicants must demonstrate in all classes the social and emotional maturity, moral character, responsibility, and professional dispositions necessary for success in the teaching profession. Students' dispositions are assessed formally at each checkpoint and informally assessed throughout the program by instructors and field experience supervisors.
 5. Recommendations. Positive recommendations need to be obtained from the student's ED 203 instructor and major advisor for Checkpoint 1. A third recommendation must also be received from a field experience cooperating teacher.
 6. Declared Major or Complementary Major. Prior to their application for admission to the Teacher Education Program, students must declare one of the following majors in the Office of the Registrar: Elementary Education, Middle Level Education, or a complementary major in Secondary Education.
 7. Attend Portfolio Seminar. Seminars are offered each semester to inform students of the portfolio assessment process.
 8. Checkpoint 1 Portfolio. Applicants need to submit artifacts and rationales correlated to INTASC standards 2, 5, and 9 to the Admission and Retention committee for evaluation. To appeal a decision of the Admission and Retention Committee, students should first direct a petition to the Committee in writing. If the committee's decision is still unfavorable and the student feels there are grounds for another appeal, that appeal should be submitted in writing to the Education Department Chair.
- Admission to the Professional Semester (Checkpoint 2).** Applications for admission to the Professional Semester must be completed and filed with the Professional Development and Placement Office before March 1 prior to the year students plan to do their student teaching. This deadline typically falls in students' junior year. For admission into the Professional Semester, the student must meet the following criteria:
1. Official admission to the Teacher Education Program. Students must have already successfully completed Checkpoint 1.
 2. Grade Point Average. Students must have a minimum cumulative grade point average of 2.50 in all courses.

Elementary School student teaching candidates must have a grade point average of 2.40 or higher in all course work in education. Students should have completed all course work in education before the Professional Semester.

Middle School/Junior High student teaching candidates should have completed all coursework in education before the Professional Semester and earned a minimum grade point average of 2.40 in all ED courses completed.

Secondary education student teaching candidates must have a grade point average of 2.40 or better in all secondary teacher fields. Secondary student teaching candidates must also have completed ED 203, 204, 305, 370, 457, 460, 489, SPED 440, and have earned a standing of 2.40 or higher in all education courses completed.

3. Communication.
Students must demonstrate continued levels of acceptable, professional standards of oral and written communication.
4. Senior standing.
The applicant must be within two semesters and one summer of graduation.
5. Character/Dispositions.
Applicants must demonstrate in all classes the social and emotional maturity, moral character, responsibility and professional dispositions necessary for success in the teaching profession.
6. Checkpoint 2 Portfolio.
Applicants must submit a satisfactory portfolio that includes artifacts and rationales from INTASC Standards 1, 3, 4, 6, 7, 8, and 10 as well as an essay conveying the candidate's understanding of the conceptual framework.
7. Recommendations.
Secondary students must submit a written recommendation from their major advisor to take the Professional Semester. If they also intend to obtain a teaching minor, they must also obtain a written recommendation from the chair of that department.

Licensure Note: To be eligible for recommendation for licensure, students must maintain the above requirements through the completion of the degree and the teacher education program, including passing the appropriate Praxis II exam(s).

Professional Semester (Checkpoint 3). Required of all candidates who wish to be recommended for an initial teaching license, this semester includes coursework, student teaching, and submission of the summative portfolio. Artifacts for the Checkpoint 3 portfolio will be based primarily upon the student teaching experience. During this semester students may enroll only in courses approved for the Professional Semester.

Placement in Field Experiences/ Student Teaching. The Teacher Education Program involves coursework that requires significant amounts of field experience. The placement and direction of all practicum experiences are the responsibility of the Director of Professional Development and Placement. Teacher candidates may not receive any compensation for work done in a school while receiving university course credit for the work.

An Indiana Limited Criminal History Background Check is required annually prior to the first day of fieldwork or student teaching and may be obtained electronically through the Department Office for a small fee. Discovery of a criminal record may delay or preclude placement of the field assignment. Students are responsible for arranging their own transportation to assigned schools.

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

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

EDUCATION COURSES

ED 103. Introduction to Teaching and Field Experience.

Cr. 3. For qualified high school juniors and seniors in approved cadet teaching programs in Northwest Indiana school corporations who wish to explore teaching as a vocation. An introduction to the teaching profession, with field experience that will give students opportunities to observe and assist professionals teaching at various developmental levels. Coursework will orient students to various aspects, opportunities, and requirements of the profession, will introduce them to state and national standards of teaching and learning, and will look at the past as well as the future of K-12 education. A 40 clock hour field experience in an elementary, middle, or high school, or some combination of the three, is required.

ED 200. The Fine Arts Experience.

Cr. 3. This course is designed to address the teaching proficiencies identified by the Indiana Professional Standards Board for early/middle childhood education generalists. Students are exposed to art, music, and theatre so that they gain an appreciation of the contributions these art forms make to culture. This course may be used by education students to fulfill the Fine Arts/ Fine Arts-Literature component of the General Education Requirements. Prerequisite: education major.

ED 203. Introduction to Teaching and Field Experience.

Cr. 3. For teacher education students and those who wish to explore teaching as a career. Includes an introduction to the teaching profession, what it takes to become a teacher, the role of teachers, standards that govern education, and an introduction to the summative portfolio process inherent in the department's teacher education programs. A 40 clock hour field experience in an elementary, middle, or high school is required.

ED 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.

ED 305/505. Computers in Education.

Cr. 2. An introductory course designed to prepare teachers to use the computer as an educational tool. Students will learn how to integrate educational technology into the classroom curriculum as they become proficient in using various media to support student learning. Will include multimedia authoring tools, presentation software, web-based instruction, and curriculum applications.

ED 307/507. Media Education.

Cr. 3. This course provides an introduction to media education and its dialogic perspective on production, text, and audience. Emphasis will be placed on seminar media education scholarship and its utility as both theory and practice in educational settings. Appropriate for elementary, middle, and secondary education students.

ED 370. Home, School, and Community Relationships.

Cr. 3. This course will focus on the relationships within K-12 schools in a diversity of school settings with emphasis on cultural and socioeconomic issues. Forty (40) hours of off-campus activities will include field experiences focusing on educators' interpersonal relationships within school communities. All students admitted to the teacher education program must take this course. May be used to fulfill the Cultural Diversity course component of the General Education Requirements. Prerequisite: ED 203. Corequisite or prerequisite: ED 204.

Note: No student is admitted to any course other than ED 203, ED 204, ED 305, ED 328, or ED 370 unless admitted to the Teacher Education Program or permitted to do so by the Admissions and Retention Committee of the Education Department or the Chair of the Education Department.

ED 323. Methods of Science Education.

Cr. 3. 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 three methods used for science instruction: Discovery Model, Inquiry Model, and Experiential Model. This course includes assessment practices for science education and a field component. Prerequisite: Admission to Teacher Education.

ED 324. Methods of Teaching Mathematics in the Elementary School.

Cr. 3. 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. This course includes assessment practices for mathematics education and a field component. Prerequisite: Admission to Teacher Education.

ED 327. Methods of Teaching Social Studies in the Elementary School.

Cr. 3. This course is designed 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. This course includes assessment practices for social studies education and a field component. Prerequisite: Admission to Teacher Education.
- ED 328. Foundations of Literacy Development.**
Cr. 3. This course is the first in the three-course sequence of literacy courses for Elementary Education majors. This course is a detailed study of developmental literacy processes, including concepts about print, phonemic awareness, phonics, word identification, strategic reading, vocabulary development, and comprehension. A field component is included.
- ED 361/561. Literacy Instruction and Assessment.**
Cr. 4. This course is the second in the three-course sequence of literacy courses for Elementary Education majors. Students will learn methods of literacy assessment and instruction that meet the needs of diverse learners through a highly scaffolded tutoring experience in which the student will be coached by a faculty member as he/she works with an individual child. In addition, students will work with elementary children in various language arts activities, including one-on-one conferencing. Course topics include literacy (reading and writing), assessment, diagnosis, individualized instruction, diverse learners, complexity of literacy development, assessment-driven decision making, effective communication with specialists and parents regarding individual student needs. Includes a field component. Prerequisites: ED 328 or equivalent 3-credit reading course and Admission to Teacher Education.
- ED 385. Admission to the Professional Semester.**
Cr. 0. The second of three required checkpoints in education, this course helps students develop a stronger understanding of INTASC standards and the Valparaiso University Conceptual Framework through preparation of the application for admission to teacher education. Meets 4 clock hours. Offered each semester. S/U grade only. Pre- or co-requisites: completion of all required education courses except Student Teaching (ED 438, 459, 479, or SPED 449) and Senior Seminar (ED 485).
- ED 439. Supervised Teaching in the Elementary Grades.**
Cr. 12. In this course each student is assigned to an elementary school classroom under the direction of a cooperating teacher and University field instructor. The field experience includes a minimum of twelve weeks during the semester of full-time classroom observations, 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 15 credit hours. S/U grade. Corequisite: ED 485.
- ED 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 school teaching. Topics addressed are curriculum development, instructional planning, classroom management, the student-teacher interaction, methods and strategies of instruction. 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 must be taken before student teaching. A field component is required. Prerequisite: Admission to Teacher Education.
- ED 459. Supervised Teaching in the Secondary School Subjects.**
Cr. 12. Each student is assigned to a secondary school for laboratory experiences in teaching, which includes at least twelve (12) weeks of full-time classroom observation, teaching and related activities. Prerequisite: Admission to 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 without permission from the Chair of the Education Department. S/U grade. First offered Fall 2004. Corequisite: ED 485.
- ED 460/560. Reading in the Content Areas.**
Cr. 3. This course includes 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. Prerequisite: Admission to Teacher Education.
- ED 466/566. Literacy Curriculum Design.**
Cr. 4. This is the third in the three-course sequence of literacy courses for Elementary Education majors. Students will use their knowledge of literacy processes, assessment, and instructional methods to plan literacy curriculum for primary and elementary students of diverse needs. In addition, students will study curriculum that integrates literacy with content areas and will design a unit that incorporates research-based literacy instruction in content areas. A fieldwork component is included. Prerequisite: Admission to Teacher Education, ED 328 and 361.
- ED 475. Teaching and Learning for Early Adolescence Generalist Candidates.**
Cr. 3. A study of the human developmental characteristics of early adolescents, organization

Education

- of schooling, and developmentally responsive curriculum in middle level education settings. This course is taken concurrently with ED 478 during a block semester structure. Classes will be conducted at both the University campus and on-site in a partner school setting. Prerequisite: Admission to Teacher Education. Corequisite: ED 478.
- ED 478. Integrated Curriculum with Special Methods for Middle Level Education.**
Cr. 6. This course will address pedagogy and curricula unique to middle level education. Special emphasis will be on developmental needs of emerging adolescents and curricular designs within middle schools. Course content will be guided by developmental and curricular standards developed by the National Middle School Association and modeled by the Indiana Professional Standards Board. This course is taken concurrently with ED 473 within a block semester structure. Theory and cognitive knowledge will be put into practice in the required field experience component. Prerequisite: Admission to Teacher Education. Corequisite: ED 475.
- ED 479. Supervised Teaching in Middle School Grades.**
Cr. 12. Each student will be assigned to a middle school under the direction of a Middle School teacher and University Field Instructor. The student teaching experience includes a minimum of 12 weeks of full-time classroom teaching, observations and related activities. Prerequisite: senior standing and concurrent enrollment in the Professional Semester. See Admission to the Professional Semester above for conditions of eligibility. S/U grade. Prerequisite: senior standing. Corequisite: ED 485.
- ED 485. Senior Seminar: Foundations of Education.**
Cr. 2. The capstone course of the teacher preparation program, Senior Seminar is taught during the Professional (Student Teaching) Semester. The primary aim of the course is to help future educators synthesize their student teaching experience with university coursework to refine their understandings of effective teaching and learning. The course interweaves coursework, case studies, and the student teaching experience; reviews some of the philosophical foundations and current issues in education in the United States; provides focused study of assessment research and practice; and supports students in the preparation of their summative portfolios and presentations for Checkpoint 3 at the end of the semester. Prerequisite: Admission to the Professional Semester (must be taken during the student's student teaching semester). Corequisite: ED 439, ED 459, ED 479, or SPED 449.
- ED 489. Special Methods in the Academic Courses in Secondary Education.**
Cr. 3. This course is administered by the Education Department. The course is offered by the various departments of the College of Arts and Sciences under the following titles:
ART 489 The Teaching of Visual Arts
BIO 489 The Teaching of Natural Sciences
CHEM 489 The Teaching of Natural Sciences
ENGL 489 The Teaching of English
FLF 489 The Teaching of Foreign Languages - French
FLGR 489 The Teaching of Foreign Languages - German
FLL 489 The Teaching of Foreign Languages - Latin
FLS 489 The Teaching of Foreign Languages - Spanish
HIST 489 The Teaching of Social Studies
MATH 489 The Teaching of Mathematics
MUS 489 School Music II
PE 489 The Teaching of Physical Education
PHYS 489 The Teaching of Natural Sciences
SPED 489 Teaching the Individual with Mild Disabilities (Grades 6-12)
A minimum of 20 clock hours of field experience will accompany this class. Prerequisite: Admission to Teacher Education. Must be taken prior to the professional semester.
- ED 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. Prerequisite: Admission to Teacher Education.
- ED 495. Independent Study in Education.**
Cr. 1-3. Independent work to be done in a specific area of education as agreed upon by the student and faculty advisor. Proposals must be approved by the Chair of the Department. Prerequisite: Admission to Teacher Education.
- ED 497. Honors Work in Education.**
Cr. 3. See Honors Work, page 54.
- ED 498. Honors Candidacy in Education.**
Cr. 3. See Honors Work, page 54.
- ### SPECIAL EDUCATION COURSES
- SPED 347/547. Characteristics of Individuals with Mild Disabilities.**
Cr. 3. This course is designed to provide information on academic, cognitive, social, behavioral, and emotional characteristics of individuals with mild disabilities (emotional/behavioral disorders, learning disabilities, and mental retardation). Topics include federal and state laws governing special education since 1970; processes involved in identifying students as having one of the disabilities considered "mild"; specific characteristics of students who have mild disabilities in cognitive, academic, behavioral or social/emotional areas; characteristics of various education service delivery systems; and interventions for students

- with mild disabilities in grades 1-12. Corequisite: SPED 348.
- SPED 348. Observation of Individuals with Mild Disabilities.**
Cr. 1. Teacher candidates will complete a series of structured observations in special education settings serving students with mild disabilities at a particular developmental level. Teacher candidates will complete various assignments, including direct observation of students with mild disabilities, interviews with various general and special education personnel, directed reflections on special education service delivery models, and surveys of the usage of various forms of technology utilized by special education personnel and students. Teacher candidates will complete the remainder of this 40 clock hour experience tutoring students with mild disabilities under the guidance of a cooperating teacher. Corequisite: SPED 347 or consent of Chair of the Department.
- SPED 440/540. Learning Exceptionalities.**
Cr. 3. A course that introduces special education laws passed since 1970 that govern the provision of current special education services for students with various disabilities, the characteristics of students with disabilities, instructional and classroom practices associated with educating these students in multicultural and least restrictive environments, and basic techniques for education professionals to work together with parents and students. Prerequisite: admission to the Teacher Education Program. Required of all teacher education students.
- SPED 441/541. Assistive Technology.**
Cr. 1. This course provides an overview of Assistive Technology (AT) that supports or enhances learning for students with special needs. Emphasis will be on developing an awareness of the diverse AT devices and software readily available which, when used according to the principles of universal design, may improve learning for all students.
- SPED 444. Assessment in Special Education.**
Cr. 3. Course is designed to develop test administration and test interpretation skills in teacher candidates for types of tests used in the identification of various disabilities and tests used to plan instruction programs. Psychometric properties of tests are also addressed. Tests/types of assessments addressed in this course include intelligence tests, achievement tests, adaptive behavior and other behavior rating scales, psychological process tests, learning capacity and aptitude instruments, observational assessment, and curriculum-based assessment. Prerequisite or corequisite: SPED 347 or consent of Chair of the Department. Required of all special education minors.
- SPED 445. Teaching the Student with Mild Disabilities.**
Cr. 3. This course provides teacher candidates with knowledge of various compensatory, corrective, and remedial instructional strategies in curriculum areas included in grades 1-6 including reading/language arts, mathematics, content areas, and social and behavioral skills. Course experiences emphasize effective, research-based teaching methods, diagnostic-prescriptive teaching techniques, and individual education planning for students with mild disabilities (emotional/behavioral disorders, learning disabilities, mental retardation) at this developmental level. Prerequisite: SPED 347. SPED 444 is either a prerequisite or corequisite. Corequisite: SPED 446, 447, or 448.
- SPED 446. Teaching Practicum with Individuals with Mild Disabilities (Grades 1-6).**
Cr. 1. This 40 clock hour practicum will give special education teacher candidates the opportunity to practice skills and performances required of special educators related to the instruction of early/middle childhood students with mild disabilities in assessment to plan instruction, developing academic goals/objectives/benchmarks, and delivery of effective instruction to early/middle childhood students with mild disabilities. Corequisite: SPED 445.
- SPED 447. Teaching Practicum with Individuals with Mild Disabilities (Grades 6-9).**
Cr. 1. This 40 clock hour practicum will give special education teacher candidates the opportunity to practice skills and performances required of special educators related to the instruction of early adolescent students with mild disabilities in assessment to plan instruction, developing academic goals/objectives/benchmarks, and delivery of effective instruction to early adolescent students with mild disabilities. Corequisite: SPED 489.
- SPED 448. Teaching Practicum with Individuals with Mild Disabilities (Grades 9-12).**
Cr. 1. This 40 clock hour practicum will give special education teacher candidates the opportunity to practice skills and performances required of special educators related to the instruction of adolescent/young adult students with mild disabilities in assessment to plan instruction, developing academic goals/objectives/benchmarks, and delivery of effective instruction to adolescent/young adult students with mild disabilities. Corequisite: SPED 489.
- SPED 449. Supervised Teaching in General and Special Education.**
Cr. 12. This course combines into one semester the experience of observation, classroom

Education

teaching, and participation in related early/middle childhood, early adolescent, adolescent/young adult special education settings. Under the direction of the cooperating teachers and University field instructors, the teacher candidate will have appropriate experiences at a particular developmental level in both general and special education setting. Prerequisites: senior standing, SPED 445 or 489, SPED 446 and admission to the professional semester. S/U grade. Corequisite: ED 485.

SPED 450/550. Models of Collaboration and Consultation in Special Education.

Cr. 3. The provision of effective services for students with disabilities requires school-based professionals to work with each other, external agencies, parents, and the students themselves. This course is designed to address the knowledge, skills, and dispositions required of education professionals in the collaborative delivery of these services in various educational settings. Topics include models of collaboration and consultation, skills required for effective collaboration and consultation, conflict management, and methods to address roadblocks to collaboration. Prerequisite or corequisite: SPED 347 or consent of the instructor.

SPED 451/551. Applied Behavior Analysis.

Cr. 3. Many students with mild disabilities exhibit social, learning, and/or behavioral problems that must be addressed in order to provide the students with appropriate educational programming. This course will provide education professionals with knowledge and experiences assessing behavior through various assessment techniques including functional assessment, planning behavioral interventions, and implementing behavior and classroom management procedures using best practice techniques. Information on legal mandates related to behavior management is also included. Prerequisite or corequisite: SPED 347 or consent of the instructor.

SPED 466/566. Teaching Reading to Students with Disabilities.

Cr. 3. This course teaches the organization of formal and informal assessment, planning, and instruction required to meet the need of students with disabilities. A field component is included. Prerequisite for Elementary Majors: ED 328 and 361. Prerequisite for Middle School and Secondary Majors: ED 460.

SPED 489. Teaching the Individual with Mild Disabilities (Grades 6-12).

Cr. 3. This course provides teacher candidates with knowledge of various compensatory, corrective, and remedial instructional strategies in curriculum areas included in grades 6-12 including language arts/reading, social studies, sciences, mathematics, social skills, study skills, vocational skills, and adaptive behaviors. Course experiences emphasize effective, research-based teaching techniques, diagnostic-prescriptive teaching techniques, and individual education/transition planning for adolescents and young adults with mild disabilities (emotional/behavior disorder, learning disabilities, and mental retardation). Prerequisite or corequisite: SPED 444; corequisite: SPED 446. Required of any student who wants to be licensed to teach middle school and/or secondary students with mild exceptional needs.

SPED 490/590. Current Problems in Special Education.

Cr. 1-3. An intensive study of an area of special education. Subtitles, amount of credit and content depend on instructor's choice and student interest.

SPED 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 advisor. Proposals must be approved before registration by the Chair of the Department.

English

Professors Byrne, Feaster, Juneja, Sponberg, Uehling (Chair), Wangerin; Associate Professors Burow-Flak, Hanson, Owens, Ruff, Sandock; Assistant Professors Buinicki, Danger Park, Schuette-Hoffman; Visiting Assistant Professor Rutz.

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 students 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. Businesses, not-for-profit agencies, 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. English elementary and secondary education majors may join the Valparaiso University affiliate of the National Council of Teachers of English.

Major in English. A major in English requires a minimum of 30 credit hours in English courses beyond ENGL 200 and numbered 300 or above. Courses must include ENGL 400, 408 and 493; one course selected from 409, 410, 420; one from 430,

450, 456; one from 460, 470, 475; and either 401 or 402.

Major in Creative Writing. A major in Creative Writing requires a minimum of 30 credit hours in writing or language-related courses. Courses must include ENGL 301, 400, and 492; three courses selected from 423, 424, 431, THTR 252, and one course selected from ENGL 460, 470, 475. Additional courses may be selected from any English courses numbered 300 or above or COMM 230 or COMM 330.

Major in Professional Writing. A major in Professional Writing requires a minimum of 30 credit hours in writing or language-related courses. Courses must include ENGL 300, 400, and 491 and COMM 230; one course selected from ENGL 321 and 431; one course selected from COMM 110, COMM 330, THTR 252; and two courses selected from ENGL 310, 441, 442, 443, PHIL 150. Additional courses may be selected from ENGL 380, 386, 365 (with chair's approval), 390 (with chair's approval), 495, or any of the courses listed above within this major. Students who take both ENGL 321 and 431 must take 321 first. With the chair's approval, students may apply cooperative education toward fulfillment of this major.

Minor in English. A minor in English requires a minimum of 18 credit hours in English courses beyond ENGL 200 and numbered 300 or above. Courses must include ENGL 400 or 408 or 493; one course selected from 409, 410, 420; one selected from 430, 450, or 456; one selected from 460, 470, 475; and either 401 or 402.

Minor in Creative Writing. A minor in Creative Writing requires a minimum of 18 credit hours in writing or language-related courses. Courses must include ENGL 301, 400, and 492; and one course selected from ENGL 423, 424, 431, and THTR 252. Additional courses may be selected from any English courses number 300 or above or COMM 230 or COMM 330.

Minor in Professional Writing. A minor in Professional Writing requires a minimum of 18 credit hours in writing or language-related courses. Courses must include ENGL 300, 400, and 491; one course selected from ENGL 321 and 431; and one

course selected from ENGL 310, 441, 442, 443, PHIL 150. Additional courses may be selected from ENGL 380, 386, 365 (with chair's approval), 390 (with chair's approval), 495, or any of the courses listed above within this minor. Students who take both ENGL 321 and 431 must take 321 first. With the chair's approval, students may apply cooperative education toward fulfillment of the minor.

Diversity in Literature. The English Department affirms the significance of writing by people of color and other ethnic or minority groups and regularly includes it in literature 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. Representative topics include American Ethnic Literature and African-American Writing.

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.

Credit for ENGL 200 may be earned through the College Level Examination Program subject examination in Analysis and Interpretation of Literature or through the Advanced Placement examination offered by the College Entrance Examination Board.

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

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 advisor's files. The Chair will explain the offerings and programs of the Department and direct each student to the department's website 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 advisors before registration. This consultation assures students of places in courses they need 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 advisors as long as they remain majors in the Department. It is the student's responsibility to confer regularly with the advisor about course selection, career planning and related matters. It is the advisor'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 56.

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.

ENGL 100. College Composition.

Cr. 3. 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.

ENGL 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.

ENGL 200. Literary Studies.

Cr. 3. 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 careful critical analyses of texts. May be used to fulfill the Humanities: Literature component of the General Education Requirements.

ENGL 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. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

Note: ENGL 200 or its equivalent is prerequisite for all literature and language courses numbered 365 or above.

ENGL 300/502. Introduction to Professional Writing.

Cr. 3. This course offers a detailed study of writing and speaking practices for effective communication in business, industry, and not-for-profit organizations. It combines analysis and praxis in composing and executing various messages in formats including letters, memoranda, 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.

ENGL 301/501. Introduction to Creative Writing.

Cr. 3. This course examines the process and product of creative writing. Topics include stages of creative writing from invention and imagination to description and dramatization. Attention focuses on the elements of fiction, poetry, drama, nonfiction 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 also address issues such as the relations of authors' autobiographies to their art, and the need to craft concrete metaphors to represent abstract ideas. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

ENGL 310/511. Introduction to Technical Writing.

Cr. 3. This course teaches engineering and science students to write and talk about design and research problems in terms that satisfy a specialist and also enable a non-specialist to understand what the problem is and how it was (or can be) solved.

ENGL 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.

ENGL 365/565. Studies in American Literature.*

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. Prerequisite: ENGL 200 or CC 110.

ENGL 380/580. Topics in Writing.*

Cr. 3. An open topics course, which may involve intensive writing in a particular genre (for example, the personal essay, dramatic poetry, longer fiction), or writing for a particular audience (for example, writing for children and young adults).

ENGL 386. Internship in English.

Cr. 0.5-3. Students gain experience working for organizations or agencies in which skills in effective writing, critical thinking, or literary scholarship are essential. A written report is required. Prerequisite: approval of the Chair of the Department.

ENGL 389. Teaching English to Speakers of Other Languages.

Cr. 3. A study of methods of teaching English to all ages of speakers of other languages. Topics include basic concepts of language learning, methods of teaching basic skills, preparation of teaching materials, means of assessing progress. Principles are applied in a concurrent practicum. Prerequisite: CORE 110 and 115.

ENGL 390/590. Topics in Literature.*

Cr. 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. Prerequisite: ENGL 200 or CC 110.

ENGL 396/596. Traditions of Giving and Serving in American Life.

Cr. 3. Selected readings in the nature and purpose of philanthropy and service in American Life. Texts will be drawn from the fields of literature, theology, social history, and philosophy that raise questions of ethics, stewardship and the common good. Prerequisite: ENGL 200 or CC 110.

ENGL 400/601. New Literacies, Technologies, and Cultures of Writing.

Cr. 3. A course in theory and practice that examines how media of expression shape texts and their interpretations. Course readings include literature and theories of textual studies in print and electronic formats. Readings emphasize the history of the book and evolving electronic new media. The course requires written papers and projects in electronic format. Prerequisite: ENGL 200 or CC 110.

English

ENGL 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. Prerequisite: ENGL 200 or CC 110.

ENGL 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. Prerequisite: ENGL 200 or CC 110.

ENGL 405. Masterpieces of World Literature.

Cr. 3. A study of major works of the Occident and Orient from ancient times to the present day. Prerequisite: ENGL 200 or CC 110.

ENGL 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. Prerequisite: ENGL 200 or CC 110.

ENGL 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. Prerequisite: ENGL 200 or CC 110.

ENGL 410/510. Shakespeare.

Cr. 3. Close readings of representative plays: histories, comedies and tragedies. Prerequisite: ENGL 200 or CC 110.

ENGL 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. Prerequisite: ENGL 200 or CC 110.

ENGL 423/523. Short Story Writing.

Cr. 3. A workshop in the various techniques of writing short fiction. English majors (not writing majors or minors), as well as other students, may take this course on the S/U basis. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

ENGL 424/524. Poetry Writing.

Cr. 3. A workshop in the various techniques of writing poetry. English majors (not writing majors

or minors), as well as other students, may take this course on the S/U basis. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

ENGL 430/530. Literature of the Restoration and Eighteenth Century.

Cr. 3. A survey of English poetry, fiction, nonfiction 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. Prerequisite: ENGL 200 or CC 110.

ENGL 431/531. 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. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

ENGL 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. Prerequisite: ENGL 200 or CC 110.

ENGL 442/542. Modern English Grammar.

Cr. 3. An introduction to recent linguistic developments such as structural grammar and transformational-generative grammar. Prerequisite: ENGL 200 or CC 110.

ENGL 443/543. Introduction to Linguistics.

Cr. 3. An 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. Prerequisite: ENGL 200 or CC 110.

ENGL 450/550. British 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. Prerequisite: ENGL 200 or CC 110.

ENGL 456/556. The Novel.

Cr. 3. A study of representative English novels of the eighteenth and nineteenth centuries, with discussion of the social background.
Prerequisite: ENGL 200 or CC 110.

ENGL 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. Prerequisite: ENGL 200 or CC 110.

ENGL 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.
Prerequisite: ENGL 200 or CC 110.

ENGL 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. Prerequisite: ENGL 200 or CC 110.

ENGL 478/578. 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. Prerequisite: ENGL 200 or CC 110.

ENGL 479/579. Literature for Adolescents.

Cr. 3. A survey, by types, of distinguished literature suitable for students in middle and secondary schools. Emphasis on the reading of selected books representing the wide range of literature for adolescents, and the developing of analytical and evaluative techniques. Introduction to bibliographical aids, review media, and current research in the field. Prerequisite: ENGL 200 or CC 110.

ENGL 481. Cooperative Education in English I.

Cr. 0.5-3. Professional work experience which clearly augments the student's classroom education. Written report required. Prerequisite: approval of the Chair of the Department.

ENGL 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.

ENGL 489. The Teaching of English.

Cr. 3. (See ED 489.) A study of methods of teaching English in middle and secondary school. Prerequisite: admission to Teacher Education. A field component is required. This course may not be counted toward a major or minor in English.

ENGL 491/591. Seminar in Professional Writing.

Cr. 3. Students will reflect critically on the meaning of certain writing tasks in the cultures of working society. They will become more aware of such topics as the ethics of marketing strategies as applied to writing projects and assignments. They will learn enough about 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 and one of ENGL 321 or 431, or approval of the Chair of the Department.

ENGL 492/592. Seminar in Creative Writing.

Cr. 3. Students consider various forms of creative writing (drama, fiction, nonfiction, 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 301 and one of ENGL 423, 424, or 431, and senior standing, or approval of the Chair of the Department.

ENGL 493. Seminar in English.

Cr. 3. Designed for juniors and seniors interested in active participation, the seminar encourages independent thought and research, and relies on discussion rather than lectures. Some recent topics:

Literary Modernism
Jane Austen and Feminism

Enrollment limited to 15 students. Required for English majors. Prerequisite: ENGL 200 and senior standing.

ENGL 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 Chair of the English Department.

ENGL 497. Honors Work in English Literature.

Cr. 3. See Honors Work page 54.

ENGL 498. Honors Candidacy in English Literature.

Cr. 3. See Honors Work page 54.

Environmental Science

Administrative Committee: Professor Arkkelin (Psychology); Associate Professors Aljobeh (Civil Engineering), Eberhardt (Biology), Longan (Geography and Meteorology), Luther (Mathematics and Computer Science, Chair), Morris (Physics and Astronomy), Shingleton (Economics); Assistant Professor Schoer (Chemistry).

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 modeling techniques to give the student an opportunity for directed research and tempers 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 modeling 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 will choose between the Ecology track and the Water Resources track. The Ecology track is intended for students interested in assessment and management of terrestrial and aquatic ecosystems; the Water Resources track is intended for students interested in assessment and management of freshwater systems such as lakes, rivers,

groundwater and watersheds. These tracks are unofficial designations that will not appear on transcripts, but will guide students during selection of courses.

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

Major Requirements. A minimum of 67 credit hours approved by the Administrative Committee is required. Introductory courses for breadth of knowledge must include BIO 171, 172, CHEM 121, 122, GEO 104, 215; and MATH 131 (27 credits).

Intermediate courses will expose students to techniques used in various disciplines to investigate and solve environmental problems; these include BIO 250 or GEO 260, CHEM 221, ECON 210, PHIL 230, PSY 201, ENVS 320 or MATH 320.

Further study for depth of knowledge in introductory or intermediate topics includes two of CHEM 222, GEO 415, CHEM 230. Students in the Water Resources track should take CHEM 230. Students explore the interaction between humans and their environment by selecting an Environmental Issues course (GEO 204, ENGL 365, PSY 355, or THEO 340).

Upper level electives provide depth of knowledge in topics of interest through three courses selected from BIO 350, BIO 440, CE 332, ENVS 340, and GEO 385. Choice of the specific GEO 385 offering requires the approval of the Chair of Environmental Science. Students in the Water Resources track should take CE 332 and ENVS 340; students in the Ecology track should take BIO 350 and BIO 440.

Students will extend coursework to professional preparation by undertaking an independent research project on campus or by participating in an internship or cooperative education experience off campus. Results from this experience are presented in the Environmental Science Colloquium, ENVS 499. Majors enrolled in ENVS 499 during both junior (0 credits) and senior (1 credit) years.

REQUIRED MAJOR COURSES

Introductory Courses

BIO 171 Unity of Life	4 Cr.
BIO 172 Diversity of Life	4 Cr.
CHEM 121 General Chemistry I	4 Cr.
CHEM 122 General Chemistry II	4 Cr.
GEO 104 Geomorphology	4 Cr.
GEO 215 Introduction to Geographic Information Systems	3 Cr.
MATH 131 Calculus	4 Cr.
Total	27 Cr.

Intermediate Courses

BIO 250 Human Environmental Biology OR GEO 260 Environmental Conservation	3 Cr.
CHEM 221 Organic Chemistry I	4 Cr.
ECON 210 Environmental Economics and Policy	3 Cr.
PHIL 230 Environmental Philosophy and Ethics	3 Cr.
PSY 201 Statistical Methods	3 Cr.
ENVS 320 Environmental Modeling OR MATH 320 Mathematical Models in the Life and Environmental Sciences	3 Cr.
Total	19 Cr.

Further Study

Choose at least two of the following:

CHEM 222 Organic Chemistry II	4 Cr.
CHEM 230 Quantitative Analysis	4 Cr.
GEO 415 Advanced Geographical Information Systems	3 Cr.
Total	7-8 Cr.

Environmental issues

Choose at least one of the following:

GEO 204 National Parks	3 Cr.
ENGL 365 Environmental Literature	3 Cr.
PSY 355 Environmental Psychology	3 Cr.
THEO 340 Ecology, Justice and Faith	3 Cr.
Total	3 Cr.

Upper Level Courses

Choose at least three of the following:

BIO 350 Field Biology: Spring	3 Cr.
BIO 440 Ecology	4 Cr.
CE 332 Hydrology	3 Cr.
ENVS 340 Water Resources Science and Management	3 Cr.
GEO 385 Field Study (Biogeography or Environmental)	3 Cr.
Total	9-10 Cr.

Professional Preparation and Experience

Choose at least one of the following:

ENVS 381 Cooperative Education in Environmental Science	1-3 Cr.
ENVS 385 Internship in Environmental Science	1 Cr.
ENVS 495 Independent Research in Environmental Science	1 Cr.
Total	1-3 Cr.

Colloquium

ENVS 499 Colloquium on Environmental Science and Management	1 Cr.
Total Program Requirement	67-71 Cr.

Recommended Elective Courses

One or more of the following are recommended for Environmental Science majors, depending on availability and interest:

CE 334 Fluid Mechanics	3 Cr.
CE 364 Environmental Engineering I	3 Cr.
CE 365 Environmental Engineering II	3 Cr.
CE 466 Environmental Engineering Design	3 Cr.
GEO 230 Remote Sensing	3 Cr.
ENGL 300 Introduction to Professional Writing	3 Cr.
ENGL 310 Introduction to Technical Writing	3 Cr.
GEO 490 Topics: Biogeography	3 Cr.
MET 103 Meteorology	4 Cr.
MET 215 Climatology	3 Cr.

Environmental Studies Minor. 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.

Minor Requirements. A minimum of 20 credit hours is required to complete this minor.

REQUIRED MINOR COURSES

One of the following

BIO 172 Diversity of Life (No prerequisite with instructor's approval)	4 Cr.
CHEM 111 Introduction to Chemistry	
GEO 104 Geomorphology	
BIO 250 Human Environmental Biology OR GEO 260 Environmental Conservation	3 Cr.
ECON 210 Environmental Economics and Policy	3 Cr.
PHIL 230 Environmental Philosophy and Ethics	3 Cr.
One of the following	3 Cr.
ENGL 365 Topics: Environmental Literature	
ENVS 340 Water Resources Science and Management	
GEO 204 National Parks	
PSY 355 Environmental Psychology	
THEO 340 Ecology, Justice and Faith	
One Field Studies Course	3-4 Cr.
BIO 350 Field Biology (3 cr.)	
BIO 440 Ecology (4 cr.)	
GEO 385 Field Study (Biogeography or Environmental- 3 cr.)	
ENVS 499 Colloquium on Environmental Science and Management	1 Cr.
Total program requirement	20-21 Cr.

Note: No more than two courses for this minor may overlap with other requirements whether within general education or within requirements for any majors or other minors. Other appropriate topics courses may be substituted for requirements with the approval of the Chair.

Environmental Science

ENVS 320. Environmental Modeling.

Cr. 3. Introduction to the fundamental concepts of pollutant fate and transport as related to environmental quality. Topics cover a wide diversity of water quality issues such as conventional pollutants in rivers, eutrophication of lakes, and toxic organic chemicals and heavy metals in surface and groundwaters. Prerequisite: approval of the Chair of Environmental Science or the instructor of the course.

ENVS 340. Water Resources Science and Management.

Cr. 3. A study of the interaction between science, policy, and management of water resources. Topics include the hydrologic cycle, limnology, wetlands, water quality and water quality indicators, federal and state water regulations and standards, watershed management, water law, and restoration of aquatic ecosystems. Prerequisite: approval of the Chair of Environmental Science.

ENVS 381. Cooperative Education in Environmental Science.

Cr. 1-3. Experience in environmental research or management with a cooperating employer. Midterm and final written reports required, as well as an oral presentation in ENVS 499. Credit hours assigned per College of Arts and Sciences guidelines. S/U grade only. May be repeated for additional credit. Prerequisites: Environmental Science major or minor and consent of the Chair of Environmental Science.

ENVS 386. Internship in Environmental Science.

Cr. 1. Summer professional experience in cooperating public or private organizations such as state environmental agencies or environmental consulting firms. Final

presentation in ENVS 499 required. S/U grade only. Prerequisites: Environmental Science major or minor and consent of the Chair of Environmental Science.

ENVS 495. Independent Research in Environmental Science.

Cr. 1. Students work on a project of environmental and scientific merit under the guidance of a faculty sponsor. Final written report and oral presentation in ENVS 499 required. S/U grade only. May be repeated for additional credit. Prerequisites: Environmental Science major or minor, consent of the Chair of Environmental Science and consent of the chair of the sponsoring department.

ENVS 499. Colloquium on Environmental Science and Management.

Cr. 0-1. This course contains (1) presentations by students, faculty, and guest speakers on current topics in environmental research, issues, policy, and management; (2) reading and discussion of items of interest in the environmental literature; and (3) occasional workshops on topics such as public communication or technical and grant writing skills. Specific content will vary based on interests of students and faculty. Environmental Science majors must enroll during both junior (0 cr.) and senior (1 cr.) years; it is assumed students will be making presentations during the senior year. Environmental Studies minors must enroll during junior or senior year. Attendance is encouraged for all student in the Environmental Science/Studies programs. S/U grade only.

Foreign Languages and Literatures

Professors S. DeMaris, Kumpf; Associate Professors Ames, Bjornstadt, Duvick (Chair), Hoult, Zamora; Assistant Professors Farmer, Kavanagh, Malchow, Miguel-Pueyo, Tomasik; Lecturers Berrier, Meng, Rivers-Parroquin.

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 careers in areas such as foreign trade, international banking, international journalism, publishing, teaching, the ministry, paralegal 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, for teaching 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 128 for details) and also participates in the International Service major (see page 130) and the Valparaiso University International Engineering Program in German (see page 213).

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 19-25 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. Those students must complete level 102 to fulfill the foreign language requirement.

Students who have completed Level II of a foreign language in high school and also place into 101 of that language may enroll in 101 for elective credit only, but must complete level 203 to fulfill the foreign language requirement.

Students who place directly into level 203 of a language shall receive 4 credit hours for level 102 and 4 credit hours for level 203 when they pass course 203 at Valparaiso University.

Students who place directly into level 204 or higher in a language shall receive 4 credit hours for level 102, 4 credit hours for level 203 and the credit hours for the course into which they have placed when they pass this latter course at Valparaiso University.

Students who have taken the equivalent of level 203 at another institution will not be awarded retroactive credit. However, they will have fulfilled their Valparaiso University foreign language requirement.

Advanced Placement by Examination. It is possible to fulfill the Foreign Language General Education Requirement through the Advanced Placement Program of the College Entrance Examination Board or through the College Level Examination Program.

Special Exception to Foreign Language Requirement. International students whose native language is not English and who are studying on a nonimmigrant visa are exempt from the Foreign Language General Education Requirement provided they fulfill the General Education Requirements in Humanities: Literature.

Members of the College of Adult Scholars and other nontraditional students who have completed Level II of a foreign language in high school (9-12) but have not studied that language for at least six full years may be allowed to count credit earned for level 101 toward the foreign language requirement. Students should consult with the Dean of the College of Adult Scholars.

Degree. Completion of the degree requirements of the College of Arts and Sciences with a major in Classics, French, German, or Spanish leads to the Bachelor of Arts degree.

Cooperative Education. Qualified students may participate in the Cooperative Education program, subject to the availability of suitable positions. During the time of their employment, students are financially reimbursed by the cooperating employer and also receive credit toward the Foreign Language major. Eligible students are normally junior or senior Foreign Language majors who have completed 12 credits beyond the third semester of their language with a cumulative grade point average of 3.00 in their foreign language courses. Cooperative Education may be repeated for up to a total of 12 credit hours, only 3 of

which may be counted toward meeting the minimum requirements of the major. For further information, refer to Cooperative Education, College of Arts and Sciences, page 56, and consult the Department Chair.

Approval of Schedules. All students who take a major or minor in the Department and all students who plan to teach a foreign language must have their schedules approved by their Foreign Language advisors at registration. A list of specific courses required of teaching majors and minors is available from the Chair of the Education Department.

Chinese

Minor. A minimum of 16 credit hours in Chinese constitutes a minor. EAST courses 109, 110, 209, 210, taken at the Hangzhou, China study center, and EAST 495 when the topic is Chinese Language study, may count toward the minor.

Study Abroad Opportunities: Hangzhou Program available fall semester only. See page 21 for details. Students considering study abroad should consult with the Department Chair and their academic advisor as early as possible.

FLC 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. Refer to foreign language credit policies stated on pages 105-106.

FLC 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.

FLC 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.

FLC 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.

- FLC 305. Advanced Chinese I.**
Cr. 4. Development of FLC 204. Emphasis on increasingly complex use of language. Develops skills in understanding authentic written and oral media as well as discourse-level speaking, and writing short texts. Prerequisite: FLC 204 or equivalent.
- FLC 306. Advanced Chinese II.**
Cr. 4. Continuation of FLC 305, stressing increased mastery of all four skills, with input from a variety of authentic sources both written and oral. Prerequisite: FLC 305 or equivalent.
- FLC 481. Cooperative Education in Chinese I.**
Cr. 0.5-3. Work experience with a cooperating employer. Written report required. Prerequisites: 12 credits beyond FLC 203 and approval of the Chair of the Department. S/U grade.
- FLC 482-483. Cooperative Education in Chinese II-III.**
Cr. 0.5-3. Continuation of FLC 481. Prerequisites: FLC 481 and approval of the Chair of the Department. S/U grade. May be repeated beyond 483 for additional credit.
- FLC 486. Internship in Chinese.**
Cr. 1-4. Direct, supervised experience in a cooperating business, government agency, or service agency, involving significant use of Chinese. May not be applied to a minor in Chinese. S/U grade only. Prerequisite: consent of the Chair of the Department.
- FLC 495. Supervised Reading and Research in Chinese.**
Cr. 1-4. A guided study of Chinese Language and Literature. Prerequisites: FLC 204 or equivalent and consent of the Chair of the Department.

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 either CLC 310 or CLC 311 and one of the following language concentrations:

1. Greek (24 credits); or
2. Latin (16 credits beyond FLL 203); or
3. Classical Languages (16 credits of Greek and 8 credits of Latin beyond FLL 203).

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 the level of course 203 or above, and
2. 24 credits of Classical Civilization courses, which must include CLC 200, CLC 220, either CLC 310 or 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 275 and THEO 317. 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 either CLC 310 or CLC 311 and one of the following language concentrations:

1. Greek (16 credits) or
2. Latin (8 credits beyond FLL 203).

Classical Civilization Track:

Requirements are 15 credits of Classical Civilization courses, which must include CLC 200, CLC 220, and either CLC 310 or CLC 311.

Teaching Programs. Students who plan to teach Latin in secondary schools with a major or minor in Classics should consult their departmental advisor 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 Dorothea Helms 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 only).

See page 20 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.

CLC 200. Classical Literary Studies.

Cr. 3. A study of Greek or Roman literature in translation with emphasis on cultural background, value and influence. Critical reading and discussion of selected works from the following genres: epic, lyric, drama, satire, history and philosophy. Introduction to literary analysis and critical writing. May be repeated for credit provided there is no duplication of material. No knowledge of Greek or Latin required. This course may be used to fulfill the literature component of the Humanities General Education Requirement.

CLC 220. Introduction to Classical Archaeology.

Cr. 3. A study of classical 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. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

CLC 250. Classical Monuments in Context.

Cr. 3. A travel course in which the study of Greek or Roman artistic expression takes place in a classical environment. Focus on archaeological sites and museum collections. 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. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

CLC 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. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

CLC 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 Ancient Athletics 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. The topics, Ancient Athletics and Cultural Diversity in the Classical World, may be used to fulfill the Cultural Diversity course component of General Education Requirements.

CLC 310. Greek Civilization.

Cr. 3. (Also offered as HIST 310). A study of Greek civilization from the late Bronze Age through the

Hellenistic period, with emphasis on political, social, and cultural developments. No knowledge of Greek or Latin required. Prerequisite: sophomore standing or consent of the Chair of the Department. May be used to fulfill the Humanities: History component of General Education Requirements.

CLC 311. Roman Civilization.

Cr. 3. (Also offered as HIST 311.) A study of Roman civilization from the 8th century B.C. to the Council of Nicea in A.D. 325, with emphasis on political, social, and cultural developments. No knowledge of Greek or Latin required. Prerequisite: sophomore standing or consent of the Chair of the Department. May be used to fulfill the Humanities: History component of General Education Requirements.

CLC 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' work will normally earn 1 credit. Formal report required. Prerequisites: FLGK 102 or FLL 102, CLC 220, either CLC 310 (HIST 310) or CLC 311 (HIST 311), and approval of Department Chair and excavation director.

CLC 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: either CLC 310 or 311 or instructor's approval.

CLC 481. Cooperative Education in Classical Civilization I.

Cr. 0.5-3. Work experience with a cooperating employer. Prerequisites: 20 credits of work in CLC, including CLC 220 and either CLC 310 or 311, and approval of Department Chair. S/U grade.

CLC 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.

CLC 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.

CLC 497. Honors Work in Classical Civilization.

Cr. 3. See Honors Work, page 54.

CLC 498. Honors Candidacy in Classical Civilization.

Cr. 3. See Honors Work, page 54.

French

Major. A minimum of 27 credit hours in French beyond FLF 203 constitutes a major. Courses must include FLF 204, 220, 493, and three courses from 231, 232, 321 or 322.

Minor. A minimum of 14 credit hours beyond FLF 203 constitutes a minor. Courses must include FLF 204 and one course from FLF 220, 231, or 232.

Special Placement. Students who place directly into a course higher than level 204 need not complete level 204 but must complete all other requirements for the major or minor, including the required total of 27 credit hours (major) or 14 credit hours (minor).

Teaching Programs. Students who plan to teach French in secondary schools with a major or minor in French should consult their departmental advisor and the Education Department for specific requirements.

The Roger and Hazel Guillaumant Award. See page 31 for details.

The Patterson MacLean Friedrich Scholarship. See page 31 for details.

Study Abroad Opportunities:

Sorbonne Paris Program (available full year or spring semester);

Paris Internship Program (available fall or spring semester);

University of Cergy–Pontoise Exchange Program (available spring semester).

See pages 22-24 for details; students considering study abroad should consult with the Department Chair and their academic advisor as early as possible.

FLF 101. First Semester French.

Cr. 4. Introduction to French language and culture with emphasis on understanding, speaking, reading, and writing. Refer to foreign language credit policies stated on pages 105-106.

FLF 102. Second Semester French.

Cr. 4. A continuation of FLF 101. Prerequisite: FLF 101 or equivalent.

FLF 200. French and Francophone Literary Studies.

Cr. 3. Study of selected works of French or Francophone literature in English translation. Readings represent significant genres and literary periods presented in biographical, historical, and cultural context. The course provides instruction and practice in the writing of careful critical analysis of the readings. May not be counted toward a major or minor in French. May be used to fulfill the Humanities: Literature component of General Education Requirements.

FLF 203. Intermediate French.

Cr. 4. A course designed to improve communication and comprehension skills in French, review and refine knowledge of basic grammar, broaden vocabulary and increase familiarity with French and Francophone cultures. Prerequisite: FLF 102 or equivalent.

FLF 204. French Composition and Conversation I.

Cr. 4. A course designed to build communication skills and understanding of French and Francophone culture. Grammar review, composition on varied topics, extensive oral practice, reading of a novel in French. Prerequisite: FLF 203 or equivalent. May be repeated for credit at the Paris Centers or similarly accredited programs.

FLF 220. Approaches to French Literature.

Cr. 3. An introduction to the strategies of reading, interpreting, and writing about French literature. Reading and discussion of works from a variety of literary genres with particular attention to textual analysis (*explication de texte*). Prerequisite: FLF 204.

FLF 231. French Civilization to 1870.

Cr. 3. A survey of French cultural history encompassing political, social, and artistic components to the beginning of the Third Republic. Prerequisite: FLF 204.

FLF 232. French Civilization from 1870 to the Present.

Cr. 3. A survey of French cultural history encompassing political, social, and artistic components from the Third Republic to the present, including study of contemporary French society. Prerequisite: FLF 204.

FLF 240. French Phonetics.

Cr. 3. A study of the principles of French phonetics with special emphasis on the difficulties encountered by American students. Brief introduction to the history of the French language. Prerequisite: FLF 204.

FLF 301. Advanced Oral Expression.

Cr. 4. Development of advanced speaking and oral comprehension skills through intensive oral practice. Through discussion, role-play, debate, and other activities, students improve fluency, increase vocabulary, refine grammatical accuracy, and learn to use appropriate linguistic register. Prerequisite: FLF 204.

FLF 302. Advanced Written Expression.

Cr. 4. Development of advanced writing skills in French. Using a variety of source materials including film, fiction, and non-fiction writing, students develop vocabulary, improve grammatical accuracy, and refine their ability to write in a variety of styles and genres for various occasions. Prerequisite: FLF 204.

- FLF 306. Contemporary French Language and Communication.**
Cr. 4. French newspapers, magazines, radio, television, films, and internet are used as a basis to build more advanced language skills and to familiarize the student with modern-day France. Prerequisite: FLF 204.
- FLF 307. Professional French.**
Cr. 3. A study of the French language as it is used in the international business world, including general commercial technology, correspondence, and the basic workings of French business. Prerequisite: FLF 204.
- FLF 321 (formerly FLF 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 220.
- FLF 322 (formerly FLF 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 220.
- FLF 390. Seminar in French.**
Cr. 3. A study of selected themes or issues in French or Francophone literature, language, or civilization. May be repeated for credit if the topic varies. Prerequisite: FLF 220 or consent of the instructor.
- FLF 481. Cooperative Education in French I.**
Cr. 0.5-3. Work experience with a cooperating employer. Written report required. Prerequisites: 12 credits beyond FLF 203 and approval of the Chair of the Department. S/U grade.
- FLF 482-483. Cooperative Education in French II-III.**
Cr. 0.5-3. Continuation of FLF 481. Prerequisites: FLF 481 and approval of the Chair of the Department. S/U grade. May be repeated beyond 483 for additional credit.
- FLF 486. Internship in French.**
Cr. 1-4. Direct, supervised experience in a cooperating business, government agency, or service agency, involving significant use of French. May not be applied to a major or minor in French. S/U grade only. Prerequisite: consent of the Chair of the Department.
- FLF 489. The Teaching of Foreign Languages.**
Cr. 3. (See ED 489.) A study of the methods of teaching foreign languages in secondary schools. A field component is required. May not be counted toward a major or minor in the Department of Foreign Languages and Literatures. Prerequisite: admission to Teacher Education.

- FLF 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.
- FLF 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.
- FLF 497. Honors Work in French.**
Cr. 3. See Honors Work, page 54.
- FLF 498. Honors Candidacy in French.**
Cr. 3. See Honors Work, page 54.

German

Major. A minimum of 27 credit hours in German beyond FLGR 203 constitutes a major. Courses must include FLGR 204, 220, 493, and three courses from 221, 222, 231, or 232.

Minor. A minimum of 14 credit hours beyond FLGR 203 constitutes a minor. Courses must include FLGR 204 and FLGR 220.

Special Placement. Students who place directly into a course higher than level 204 need not complete level 204 but must complete all other requirements for the major or minor, including the required total of 27 credit hours (major) or 14 credit hours (minor).

Teaching Programs. Students who plan to teach German in secondary schools with a major or minor in German should consult their departmental advisor and the Education Department for specific requirements.

Valparaiso University International Engineering Program (VIEP-Germany). Engineering students who wish to enhance their program with German language study, study abroad, and an overseas cooperative education placement should see page 213 for details about the VIEP-German program.

Study Abroad Opportunities:

Reutlingen Program (available fall or spring semester);

Tübingen Program (available full year only). See page 25 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 31 for details.

Also available: Reutlingen Semester Scholarship and Tübingen Orientation Scholarship.

FLGR 101. First Semester German.
Cr. 4. Introduction to German language and culture with emphasis on understanding, speaking, reading, and writing. Refer to foreign language credit policies stated on pages 105-106.

FLGR 102. Second Semester German.
Cr. 4. A continuation of FLGR 101. Prerequisite: FLGR 101 or equivalent.

FLGR 200. German Literary Studies.
Cr. 3. Study of selected works of German literature in English translation. Readings represent significant genres and literary periods presented in biographical historical, and cultural context. The course provides instruction and practice in the writing of careful critical analysis of the readings. May not be counted toward a major or minor in German. Fulfills the literature component of the Humanities General Education Requirement.

FLGR 203. Intermediate German.
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: FLGR 102 or equivalent.

FLGR 204. German Composition and Conversation I.
Cr. 4. A course designed to build communication skills and understanding of German-language culture. Grammar review, composition on varied topics, extensive oral practice, reading of a novel in German. Prerequisite: FLGR 203 or equivalent. May be repeated for credit at Reutlingen Center.

FLGR 205. German Composition and Conversation II.
Cr. 4. A continuation of FLGR 204, with work of increased complexity. Prerequisite: FLGR 204.

FLGR 220. Approaches to German Studies.
Cr. 3. An introduction to the strategies of reading, interpreting, and writing about German texts. Reading and discussion of works from a variety of genres with particular attention to textual analysis. Prerequisite: FLGR 204.

FLGR 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 220.

FLGR 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 220.

FLGR 231. German Civilization to 1800.
Cr. 3. A historical and interdisciplinary survey of German culture to the end of the 18th century. Prerequisite: FLGR 220.

FLGR 232. German Civilization since 1800.
Cr. 3. A historical and interdisciplinary survey of German culture in the 19th and 20th centuries. Prerequisite: FLGR 220.

FLGR 260. German Film Studies.
Cr. 3. Study of selected films representing significant milestones in German cinema from the 1920s to the present. The course is conducted in English and focuses on cultural and historical context, cinematic technique, and instruction and practice in the writing of careful critical analysis of the films. May not be counted toward a major or minor in German. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

FLGR 271. German Drama Practicum.
Cr. 1-3. Rehearsal and performance of a play or an excerpt from a play in German. No prior acting experience required. Prerequisite: FLGR 204 and consent of the Chair of the Department. May be repeated for additional credit. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

FLGR 306. Contemporary German Language in the Mass Media.
Cr. 4. German-language newspapers, magazines, radio, television, films, and internet are used as a basis to build more advanced language skills and to familiarize the student with modern-day German language countries. Prerequisite: FLGR 220.

FLGR 307. Professional German.
Cr. 3. A study of the German language as it is used in the international business world, including basic commercial technology, correspondence, and the basic workings of business in German language countries. Prerequisite: FLGR 220.

FLGR 341. History of the German Language.
Cr. 3. A historical study of the development of the German language. Students are introduced to the basics of linguistics, to linguistic change from Indo-European to the present, and to contemporary dialect variation in German. Prerequisite: FLGR 220.

FLGR 390. Seminar in German.
Cr. 3. A study of selected themes or issues in German literature, language, or civilization. May be repeated for credit if the topic varies.

Foreign Languages and Literatures

Prerequisite: one course from the following: FLGR 221, 222, 231, or 232.

FLGR 481. Cooperative Education in German I.

Cr. 0.5-3. Work experience with a cooperating employer. Written report required. Prerequisites: 12 credits beyond FLGR 203 and approval of the Chair of the Department. S/U grade.

FLGR 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. S/U grade. May be repeated beyond 483 for additional credit.

FLGR 486. Internship in German.

Cr. 1-4. Direct, supervised experience in a cooperating business, government agency, or service agency, involving significant use of German. May not be applied to a major or minor in German. S/U grade only. Prerequisite: consent of the Chair of the Department.

FLGR 489. The Teaching of Foreign Languages.

Cr. 3. (See FLF 489 and ED 489.) A field component is required. Prerequisite: admission to Teacher Education.

FLGR 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.

FLGR 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.

FLGR 497. Honors Work in German.

Cr. 3. See Honors Work, page 54.

FLGR 498. Honors Candidacy in German.

Cr. 3. See Honors Work, page 54.

Greek

See Classics for description of Greek concentration in Classics major and minor.

FLGK 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. Refer to foreign language credit policies stated on pages 105-106.

FLGK 102. Second Semester Greek.

Cr. 4. A continuation of FLGK 101 with readings from Classical and/or New Testament authors. Prerequisite: FLGK 101 or equivalent.

FLGK 203. Intermediate Greek.

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: FLGK 102 or equivalent.

FLGK 320. Koine 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. This course may be repeated provided there is no duplication of material. Prerequisite: FLGK 203 or equivalent.

FLGK 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: FLGK 203 or equivalent.

FLGK 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: FLGK 203 or equivalent.

FLGK 495. Supervised Reading and Research in Greek.

Cr. 1-4. Intended for students capable of doing independent study in Greek language and literature. Scholarly paper required. Prerequisite: consent of the Chair of the Department.

FLGK 497. Honors Work in Greek.

Cr. 3. See Honors Work, page 54.

FLGK 498. Honors Candidacy in Greek.

Cr. 3. See Honors Work, page 54.

Hebrew

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

FLH 101. First Semester Hebrew.

Cr. 4. Elements of Hebrew grammar stressing oral and reading ability. Refer to foreign language credit policies stated on pages 105-106.

FLH 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.

FLH 203. Intermediate Hebrew.

Cr. 4. Selected reading of Old Testament prose and poetry, with attention to increased vocabulary and linguistic structure. Prerequisite: FLH 102 or equivalent.

FLH 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.

FLH 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.

Japanese

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

Study Abroad Opportunities:
Kansai Gaidai Program (available fall and/or spring semesters);

Osaka International University 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.

FLJ 101. Beginning Japanese I.
Cr. 4. An introduction to the basic grammar of Japanese. Refer to foreign language credit policies stated on pages 105-106.

FLJ 102. Beginning Japanese II.
Cr. 4. A continuation of FLJ 101. Prerequisite: FLJ 101 or equivalent.

FLJ 200. Japanese Literary Studies.
Cr. 3. Study of selected works of Japanese literature in English translation. Readings represent significant genres and literary periods presented in biographical, historical, and cultural context. The course provides instruction and practice in the writing of careful critical analysis of the readings. May not be counted toward a minor in Japanese. Fulfills the literature component of the Humanities General Education Requirement.

FLJ 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.

FLJ 204. Intermediate Japanese II.
Cr. 4. A continuation of FLJ 203. Prerequisite: FLJ 203 or equivalent.

FLJ 250. Topics in Japanese Literature 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. The topic Japanese Poetry and Calligraphy may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements.

FLJ 305. Advanced Japanese I.
Cr. 4. Continuation of FLJ 204. Introduction of extended prose readings. Simple conversation in everyday Japanese. Prerequisite: FLJ 204 or equivalent.

FLJ 306. Advanced Japanese II.
Cr. 4. Continuation of FLJ 305. Emphasis on syntax of prose texts; review of grammar. Conversation in everyday Japanese. Composition in the expository style. Prerequisite: FLJ 305 or equivalent.

FLJ 322. Readings in Modern Japanese Literature.
Cr. 3. Readings in a variety of fictional works by twentieth-century authors in the original Japanese. Discussion of themes and narrative techniques; emphasis on skills required in the study of literary texts. Prerequisite: FLJ 305 or consent of the instructor.

FLJ 481. 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.

FLJ 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.

FLJ 486. Internship in Japanese.
Cr. 1-4. Direct, supervised experience in a cooperating business, government agency, or service agency, involving significant use of Japanese. May not be applied to a minor in Japanese. S/U grade only. Prerequisite: consent of the Chair of the Department.

FLJ 495. 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.

Latin

See Classics for description of Latin concentration in Classics major and minor.

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.

- FLL 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. Refer to foreign language credit policies stated on pages 105-106.
- FLL 102. Second Semester Latin.**
Cr. 4. A continuation of FLL 101, followed by easy selections from Latin prose. Prerequisite: FLL 101 or equivalent.
- FLL 203. Intermediate Latin.**
Cr. 4. A course designed to review and refine knowledge of basic grammar and syntax, to introduce reading and composition, and to study pertinent aspects of Roman life and history. Prerequisite: FLL 102 or equivalent.
- FLL 204. Vergil.**
Cr. 4. Readings from the works of Vergil and an introduction to Vergilian scholarship. Prerequisite: FLL 203 or equivalent.
- FLL 340. Medieval Latin.**
Cr. 4. Readings in the Vulgate and in medieval prose and poetry. Prerequisite: FLL 203 or equivalent.
- FLL 410. Latin 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: FLL 203 or equivalent.
- FLL 411. 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: FLL 203 or equivalent.
- FLL 489. The Teaching of Foreign Languages.**
Cr. 3. (See FLL 489 and ED 489.) A field component is required. Prerequisite: admission to the Professional Semester.
- FLL 495. Supervised Reading and Research in Latin.**
Cr. 1-4. Intended for students capable of doing independent study in Latin language and literature. Scholarly paper required. Prerequisite: consent of the Chair of the Department.
- FLL 497. Honors Work in Latin.**
Cr. 3. See Honors Work, page 54.
- FLL 498. Honors Candidacy in Latin.**
Cr. 3. See Honors Work, page 54.

Spanish

Major. A minimum of 27 credit hours beyond FLS 203 constitutes a major. Courses must include FLS 204, 220, 230 or 231, 321 or 322, and 493.

Minor. A minimum of 14 credit hours beyond FLS 203 constitutes a minor. Courses must include FLS 204 and one course from FLS 220, 230, or 231.

Special Placement. Students who place directly into a course higher than level 204 need not complete level 204 but must complete all other requirements for the major or minor, including the required total of 27 credit hours (major) or 14 credit hours (minor).

Teaching Programs. Students who plan to teach Spanish in secondary schools with a major or minor in Spanish should consult their departmental advisor and the Education Department for specific requirements.

Study Abroad Opportunities:

Granada, Spain (available fall semester or for the full year but not for the spring semester);

Puebla, Mexico Program (available spring semester only).

See pages 21 and 24 for details; students considering study abroad should consult with the Department Chair and their academic advisor as early as possible.

FLS 101. First Semester Spanish.
Cr. 4. Introduction to Spanish language and Hispanic cultures with emphasis on understanding, speaking, reading, and writing. Refer to foreign language credit policies stated on pages 105-106.

FLS 102. Second Semester Spanish.
Cr. 4. A continuation of FLS 101. Prerequisite: FLS 101 or equivalent.

FLS 200. Hispanic Literary Studies.
Cr. 3. Study of selected works of Spanish-language literature in English translation. Readings represent significant genres and literary periods presented in biographical, historical, and cultural context. The course provides instruction and practice in the writing of careful critical analysis of the readings. May not be counted toward a major or minor in Spanish. Fulfills the literature component of the Humanities General Education Requirement.

FLS 203. Intermediate Spanish.
Cr. 4. A course designed to improve communication and comprehension skills in Spanish, review and refine knowledge of basic grammar, broaden vocabulary and increase

- familiarity with Hispanic cultures. Prerequisite: FLS 102 or equivalent.
- FLS 204. Spanish Composition and Conversation.**
Cr. 4. Practice in speaking, understanding, reading and writing everyday Spanish. Increased understanding of the Hispanic world through reading and discussion. Prerequisite: FLS 203 or equivalent.
- FLS 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: one of FLS 204, 230, or 231.
- FLS 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: one of FLS 204, 220, or 231.
- FLS 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: one of FLS 204, 220, or 230.
- FLS 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 Humanities: Fine and Performing Arts or the Cultural Diversity course component of the General Education Requirements.
- FLS 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: one of FLS 220, 230 or 231.
- FLS 307. Professional Spanish.**
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: one of FLS 220, 230, or 231.
- FLS 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.
- FLS 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.
- FLS 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: one of FLS 220, 230, or 231.
- FLS 390. Seminar in Spanish.**
Cr. 3. A study of selected themes or issues in Spanish or Spanish American literatures, language, or civilization. May be repeated for credit if the topic varies. Prerequisite: one of FLS 220, 230, or 231.
- FLS 481. Cooperative Education in Spanish I.**
Cr. 0.5-3. Work experience with a cooperating employer. Written report required. Prerequisites: 12 credits beyond FLS 203 and approval of the Chair of the Department. S/U grade.
- FLS 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.
- FLS 486. Internship in Spanish.**
Cr. 1-4. Direct, supervised experience in a cooperating business, government agency, or service agency, involving significant use of Spanish. May not be applied to a major or minor in Spanish. S/U grade only. Prerequisite: consent of the Chair of the Department.
- FLS 489. The Teaching of Foreign Languages.**
Cr. 3. (See FLS 489 and ED 489.) A field component is required. Prerequisite: admission to Teacher Education.
- FLS 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.
- FLS 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.
- FLS 497. Honors Work in Spanish.**
Cr. 3. See Honors Work, page 54.
- FLS 498. Honors Candidacy in Spanish.**
Cr. 3. See Honors Work, page 54.

Geography and Meteorology

Professor Janke; Associate Professors Kilpinen, Longan, Wolf (Chair); Assistant Professors Bals-Elsholz, Min; Instructor Clark, Ganesh Babu.

Geography

Geography is a diverse subject that 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, GIS, remote sensing, demography, climatology, industrial location planning, land use planning, soil conservation, transportation planning, and teaching of resource management.

Student interest in geography outside the classroom is encouraged through the Geography Club, 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.

Geography Major. A minimum of 30 credit hours in geography chosen by the student in consultation with his or her advisor constitutes a major. Two 100-level, two 200-level, and four 300-level or higher courses must be included.

Within the geography major, students may focus their studies further by selecting one of the following concentrations: Cartography and Geographic Information Systems (GIS), Environmental Geography, Urban Geography and Regional Planning, and Human/Cultural Geography. The Department maintains detailed information sheets on these concentrations, including course listings, internship recommendations, and career options. Contact the Chair of the Department for details.

Geography Minor. A minimum of 16 credit hours in geography, chosen by the student in consultation with his or her advisor, constitutes a minor. One 100-level, one 200-level, and two 300-level or higher courses must be included.

American Indian Studies Minor. A minimum of 16 credit hours is required for the minor and must include at least one 100-level geography course and at least six credit hours from the following courses: GEO 200, 274 and 490, and six additional credit hours selected from GEO 385, 474, and 486.

Because geography offers undergraduate students excellent opportunities to develop their professional skills through course work, field study, and internships, the Department maintains information sheets on geography as a second major or minor tailored specifically to disciplines such as biology, civil engineering, business, foreign language, history, sociology/anthropology, and political science. The new Kallay Laboratory was designed to facilitate research and teaching in the area of computerized geographic analysis, including GIS, remote sensing, and cartography. Other courses analyzing ethnic relations and global cultures will strengthen student interests in the humanities and social sciences. Contact the Chair of the Department for more information or visit the Department's web page at <http://www.valpo.edu/geomet/>.

Geoscience

The Geoscience major at Valparaiso University is an interdisciplinary Bachelor of Science curriculum designed for students interested in the broad interplay between the geographic and atmospheric sciences through the use of spatial and other analytical tools. This major integrates dynamic classroom instruction with field and professional experience to prepare students for a wide variety of careers. Students completing the major may go on to careers in environmental management, natural disaster preparation and recovery, emergency management, science education, and geospatial technology, or graduate school in geoscience, geography, or geology.

Geoscience Major. A minimum of 35 credit hours is required for the major and must include the Geoscience Core (20 credit hours), the Geoscience Tools (6 credit hours), the Professional Experience (3 credit hours), and Electives (6 credit hours) listed below. Students must also complete MATH 131 or 151. The Geoscience Major is not available to students majoring in geography or meteorology.

Geoscience Core

Complete all of the following courses:

GEO 104 Introduction to Geomorphology	4 cr.
GEO 215 Introduction to GIS	3 cr.
GEO 404 Advanced Geomorphology	3 cr.
MET 103 Introduction to Meteorology	4 cr.
MET 215 Climatology	3 cr.
GSC 493 Geoscience Seminar	3 cr.
Total	20 cr.

Geoscience Tools

Complete two of the following courses:

GEO 225 Cartography	3 cr.
GEO 230 Remote Sensing	3 cr.
GEO 361 Research Design	3 cr.
GEO 415 Advanced GIS	3 cr.
GSC 291 Topics in Geoscience Tools	3 cr.
Total	6 cr.

Professional Experience

Complete one of the following courses:

GEO 385 Field Study in Geography	3 cr.
GEO 486 Internship in Geography	3 cr.
MET 385 Field Study in Meteorology	3 cr.
MET 486 Internship in Meteorology	3 cr.
Total	3 cr.

Electives

Complete two of the following courses:

GEO 204 National Parks	3 cr.
GEO 260 Environmental Conservation	3 cr.
GEO 285 Natural Hazards	3 cr.

GSC 290 Topics in Geoscience	3 cr.
GSC 495 Independent Study	3 cr.
MET 216 Introduction to Meteorological Observation and Analysis	3 cr.
MET 279 Severe Storm Nowcasting	3 cr.
MET 319 Tropical Meteorology	3 cr.
Any geology course through the VIGGA Program at Indiana University Northwest	3 cr.
An additional Geoscience Tools or Professional Experience course	3 cr.
Total	6 cr.

Geoscience Minor. A minimum of 17 credit hours is required for the minor and must include GEO 104, GEO 215, GEO 404, MET 103, and MET 215. The Geoscience Minor is not available to students majoring in geography or meteorology.

Meteorology

The atmospheric science course of study at Valparaiso University leads to a Bachelor of Science degree in Meteorology. The science of meteorology draws heavily on the fields of mathematics, physics, computer science, and chemistry. As such, students should possess a strong mathematics and science background. The local chapter of Chi Epsilon Pi meteorology honor society promotes excellence and further training in meteorology.

The job market in meteorology, like the field itself, is rich and diverse. Many graduates enter employment with airlines, private forecasting and environmental consulting firms, or the National Weather Service. Others pursue professional opportunities with the U.S. Air Force through the University's Air Force ROTC program (see page 243). Still others pursue careers in research and academia, which require graduate training. Valparaiso University graduates have gone on to many of the finest meteorology graduate programs in the country.

Broadcast meteorology represents another promising career sector, and many recent graduates from our Department have achieved success in this field. There is considerable demand nationwide for trained professionals able to communicate meteorological information effectively and accurately, either through the broadcast media (cable, television, and radio) or in association with various consulting firms. Students prepare for this field through hands-on training and experience in broadcasting in

the new television weather studio in Schnabel Hall and through internships at a variety of broadcast stations across the country, including WGN-TV in Chicago. Those interested in careers in broadcast meteorology should complete a Television-Radio Minor through the Department of Communication (see page 81) from among the following courses, in addition to the Bachelor of Science degree in meteorology:

COMM 100 Survey of Communication Fields . . .	3 Cr.
COMM 198 Nonlinear Video Editing	3 Cr.
COMM 250 Radio and Audio Production	3 Cr.
COMM 251 Introduction to Broadcast Production	3 Cr.
COMM 490 Topic: Broadcast News OR COMM 380 Television Producing and Directing	3 Cr.
COMM 385 Television Field Production	3 Cr.

Students interested in extracurricular learning opportunities are encouraged to participate in the National Weather Association chapter and VUSIT program and avail themselves of the program's field course opportunities, including the Severe Convective Storms Field Study. Internships and cooperative education experiences are also available to qualified students. The Department maintains a well-equipped weather center with instrumented tower, McIDAS-X, GEMPAK, and other analysis tools. A state-of-the-art, dual-polarization Doppler radar and a radiosonde launcher are scheduled to become operational in late 2007.

Meteorology Major. A minimum of 32 credit hours constitutes a major in meteorology for the Bachelor of Science degree. For this meteorology program, students are required to take MET 103, 215, 216, 369, 372, 373, 480, 481, and one course from 279, 319, 330, 350, 430, 435, 440, or 490. The meteorology major must also take PHYS 141, 141L, 142 and 142L, (MATH 131 and 132) or (MATH 151 and 152), MATH 234, and MATH 253. Students must maintain a minimum grade point average of 2.50 in all Valparaiso University meteorology courses and those mathematics and physics courses required for meteorology to remain in the major. Students will be reviewed initially at the end of their second semester on campus and each academic year thereafter.

Meteorology Minor. A minimum of 17 credits in meteorology constitutes a minor. This must include the following meteorology courses: MET 103, 215, 216, 369, and 372.

Geology

The Valparaiso University-Indiana University Northwest Geography and Geology Association (VIGGA) Major in Geology. The purpose of this association is to provide educational opportunities at the undergraduate level in the geological and geographical sciences to the students enrolled at Valparaiso University and Indiana University Northwest, Gary. Since the school year of 1970-1971, full-time undergraduate students in these academic disciplines have been permitted to enroll in Association courses under the following conditions:

1. Students may take a maximum of two courses per semester at the other participating institution.
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 and Meteorology Department (VU).
5. Grades earned 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 geology. Degrees are awarded by the home institution.

MET 103 Introduction to Meteorology . . .	(VU) 4 Cr.
GEO 104 Introduction to Geomorphology .	(VU) 4 Cr.
G-209 History of the Earth	(IUN) 3 Cr.
G-221 Introductory Mineralogy	(IUN) 4 Cr.
G-222 Introductory Petrology	(IUN) 3 Cr.
G-323 Structural Geology	(IUN) 3 Cr.
G-334 Principles of Sedimentology and Stratigraphy	(IUN) 3 Cr.
G-406 Introduction to Geochemistry	(IUN) 3 Cr.
G-420 Regional Geology Field Trip	(IUN) 1-3 Cr.
G-435 Glacial and Quaternary Geology . .	(IUN) 3 Cr.
G-490 Undergraduate Seminar	(IUN) 1-2 Cr.

Additional Indiana University course offerings open to Valparaiso University students majoring in geology are G-410 and G-413. See the IUN 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 geology, and all students planning to teach geography must have their schedules approved by the Chair of the Department at the beginning of each semester.

GEOGRAPHY

SOCIAL SCIENCE COURSES

The following courses may be used to fulfill part of the Social Science component of the General Education Requirements. No course can meet more than one General Education Requirement.

GEO 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.

GEO 102. Globalization and Development.

Cr. 3. A regional survey of the developing countries, with an emphasis on their economic, social, and political development in the context of growing global interconnectedness. The course will explore issues of colonization, cultural change, ethnic conflict, and environmental modification. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

GEO 200. American Ethnic Geography.

Cr. 3. An analysis of the rich ethnic diversity of the United States, including the immigration and regional settlement of each of the major cultural groups and their physical expression on the North American Landscape. Topical themes include language, religion, politics, and urban imprints. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

GEO 201. Economic Geography.

Cr. 3. An analysis of the location of economic activities as parts of a system. Prerequisite: sophomore standing or above.

GEO 274. North American Indian on Film.

Cr. 3. Through history, plays, novels, and film, this course helps us to understand distinctive features of Native American life as understood by Native Americans. It dispels common myths about Native Americans, examines the struggle of different tribes to maintain their identities, and provides insights into their values and religious beliefs. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

GEO 280. Geography of Cyberspace

Cr. 3. (Also offered as COMM 280.) A course exploring the geographical dimensions of the Internet, media, and telecommunications. Includes consideration of urban telecommunication, online community, and virtual spaces.

GEO 301/501. Regional Geographies of the World.

Cr. 3. A geographic interpretation of the environmental, cultural, political, and economic patterns of one of the world's major regions, such as the United States and Canada, Latin America, Europe, Asia, or Africa. May be repeated for credit when the regional offering is different. Certain regional offerings may be used to fulfill the Cultural Diversity course component of the General Education Requirements. Prerequisite: junior standing or consent of the Chair.

GEO 320. Urban Geography.

Cr. 3. A course treating urban settlements as 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.

GEO 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.

GEO 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.

GEO 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.

GEO 475/575. Culture, Nature, Landscape.
Cr. 3. An advanced course in cultural geography exploring the integration of culture and nature in both material landscapes and their representation in art, literature, or other media. The examination of culture includes consideration of race, ethnicity, gender, and nationality. Fieldtrip. Prerequisite: junior or senior standing.

ENVIRONMENTAL AND GEOGRAPHIC INFORMATION SCIENCE COURSES

GEO 104. Introduction to 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. May be used to partially fulfill the Natural Science component of the General Education Requirements. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

GEO 204. National Parks.
Cr. 3. A study of geographic concepts, both physical and cultural, of many national park areas, including all of the 55 national parks, many national monuments, and other areas controlled by the park system. Required four-day field trip during the fall break to Mammoth Cave National Park.

GEO 210. Current Themes in Geography.
Cr. 1-3. This course is designed to examine current geographic topics. These may include American minority settlement patterns and communities, cultural ecology, geographic techniques, travel and tourism, medical geography, 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.

GEO 215. Introduction to Geographic Information Systems.
2+2, Cr. 3. An introduction to the theory and practical use of geographic information systems. These powerful research tools combine computer mapping and databases to provide diverse combinations of spatial information and modeling capabilities to enhance decision-making processes and planning. GIS usage is also highly multidisciplinary; the class may be of interest to students of several other programs such as civil engineering, biology, business, health sciences.

GEO 225. Cartography.
2+2, Cr. 3. An introduction to cartographic history and techniques and the composition and construction of maps, with a focus on the

contributions of both manual and computerized techniques to modern map design.

GEO 230. Remote Sensing.
Cr. 3. An introduction to the fundamentals of earth analysis in geography and meteorology using digital and photographic data acquired by a variety of aircraft and satellite sensors. Topics include image interpretation and processing, photogrammetry, change analysis, and environmental monitoring. May be of interest to students in biology, environmental science, and civil engineering.

GEO 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.

GEO 285. Natural Hazards.
2+2, Cr. 3. An investigation of the physical causes, geographic distribution, and human threats of a wide range of environmental hazards, including earthquake, volcano, tsunami, landslide, hurricane, tornado, and flood disasters. The course will make abundant use of GIS and remote sensing technology.

GEO 318. Field Study in European Geography.
Cr. 3. Overseas Study Program only.

GEO 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.

GEO 385/585. Field Study.
0+4, Cr. 1-3. 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.

GEO 404/504. Advanced Geomorphology.
Cr. 3. A study of the principles and analysis of complex geomorphic processes and the resulting landforms. Students will enhance their knowledge of physiographic processes and topographic form through laboratory exercises and field trips. Prerequisite: GEO 104.

GEO 415/515. Advanced Geographic Information Systems.
Cr. 3. A course in research design and execution using GIS. Students will enhance their knowledge of GIS packages and advanced operations while researching a topic or problem. Individual and/or class projects will also focus on designing research for GIS. Prerequisite: GEO 215.

GEO 486. Internship in Geography.

Cr. 1-6. Students gain experience by working in public or private agencies, such as planning firms, national parks and map companies. Prerequisites: geography major or minor and consent of internship coordinator. S/U grade only.

GEO 490/590. Selected Topics in Geography.

Cr. 1-3. Advanced studies in geography. Such topics as landform analysis, human environmental impact, biogeography, environmental management, and international business are considered. May be repeated when the topic is different. Prerequisite: junior or senior standing.

GEO 495. Independent Study.

Cr. 1-4. 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.

GEO 497. Honors Work in Geography.

Cr. 3. See Honors Work, page 54.

GEO 498. Honors Candidacy in Geography.

Cr. 3. See Honors Work, page 54.

GEOSCIENCE

GSC 290. Topics in Geoscience.

Cr. 1-3. A course investigating a specific aspect of geoscience. Possible topics include human impacts on the environment, severe and unusual weather, and oceanography. Course work may involve field and laboratory experiences. May be repeated when the topic is different.

GSC 291. Topics in Geoscience Tools.

Cr. 1-3. A course investigating a specific aspect of geoscience technology or analysis. Possible topics include the global positioning system, meteorological instrumentation, raster GIS, data analysis, and research design. May be repeated when the topic is different.

GSC 493. Geoscience Seminar.

Cr. 3. A capstone course incorporating reading, discussion, and research on contemporary issues in geoscience. Required for geoscience majors. Prerequisite: senior standing. Normally offered every spring semester.

GSC 495. Independent Study.

Cr. 1-3. Individual research on a topic in geoscience agreed upon by a student and faculty member of his/her choice from the Department. Prerequisite: junior or senior standing and consent of the Chair of the Department.

METEOROLOGY

MET 103. Introduction to Meteorology.

2+4, Cr. 4. An introductory course providing a general overview of atmospheric science with emphasis on midlatitude cyclones and anticyclones, air masses, atmospheric stability, precipitation processes and convection. May be used to partially fulfill the Natural Science component of the General Education Requirements. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

MET 215. Climatology.

2+2, Cr. 3. A study of the scope and controls of climate and an investigation at the global, regional and local scales. Included are climate classification, climate models and climate change. Prerequisite: MET 103 or consent of the instructor.

MET 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 and MATH 131 or 151.

MET 240. Introduction to Climate Change.

Cr. 3. An exploration of past climate changes and the issue of contemporary anthropogenic greenhouse warming. Students will gain an understanding of the major forcing mechanisms behind climate change, as well as the feedbacks that are important in the climate system. Not open to students who have received credit for MET 440. Prerequisites: MET 103 or consent of instructor.

MET 279. Severe Storm Prediction and Nowcasting.

Cr. 3. Introduces the student to the structure of supercell and multicell thunderstorms and tornadoes, as well as their synoptic or mesoscale environments. Examines current methods of forecasting convective weather systems. Prerequisite: MET 216.

MET 290. Topics in Meteorology.

Cr. 1-3. Seminar in selected meteorological topics appropriate for more intensive investigation at the intermediate level, with an emphasis on the relationship between meteorology and other disciplines. Topics may include remote sensing, natural hazards, and meteorology in the humanities or social sciences. May be repeated for credit if the topic is different. Prerequisite: MET 103 or consent of instructor.

- MET 319. Tropical Meteorology.**
Cr. 3. Introduction to the synoptics and dynamics of tropical weather systems, including their interaction with and influence on the global circulation. Topics include oceanic current systems, monsoons, tropical cyclones, ENSO, and local/mesoscale circulations. Prerequisite: MET 216.
- MET 330. Meteorological Computer Applications.**
Cr. 3. An introduction to computing in an atmospheric science context. FORTRAN programming in Windows and UNIX environments is used to analyze meteorological processes such as convection, advection, phase changes, etc. Additional programming languages may be included as appropriate. Prerequisite: MET 216.
- MET 350. Boundary Layer Meteorology.**
Cr. 3. A study of the physical processes of the earth's boundary layer and microclimate. Topics will include turbulent transfer in the boundary layer, the surface energy balance, turbulent fluxes of heat, moisture, and momentum, evapotranspiration, and the modification of weather and climate due to surface and boundary layer conditions. Prerequisite: MET 103 and MATH 131 or 151.
- MET 369/569. Atmospheric Thermodynamics.**
Cr. 3. Survey of the atmospheric system, including basic characteristics and variables; radiation thermodynamics; vertical temperature structures; stability concepts and evaluation; physics of clouds and precipitation processes. Prerequisites: MATH 253 and MET 216.
- MET 372/572. 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. Emphases are on the applications of the basic equations of motion, atmospheric thermodynamics, gradient and geostrophic flow, and the general circulation. Prerequisites: MATH 253 and MET 216.
- MET 373/573. 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 climatologies, jet streaks, and secondary thermal circulations. Laboratory case studies and exercises. Prerequisite: MET 372.
- MET 385/585. Field Study in Meteorology.**
0+4, Cr. 3. Field work emphasizing aspects of meteorological analysis and forecasting. Topics include severe storm prediction, spotting and interception and aviation meteorology. May be repeated for credit if the topics are different.
- Additional fees charged to cover expenses.
Prerequisite: consent of the instructor.
- MET 430/530. Numerical Weather Prediction.**
Cr. 3. An introduction to numerical modeling techniques and weather prediction models: model fundamentals, structures, dynamics, physical parameterization, and model forecast diagnostics. Students will gain experience running simple codes and study different aspects and intelligent use of weather models. Prerequisite: MET 330.
- MET 435/535. Radar Meteorology.**
Cr. 3. A study of the theoretical and operational principles of meteorological radar, including dual-polarization methodologies. This course focuses on applications and techniques of Doppler weather radar. Prerequisites: MET 216 and MATH 253.
- MET 440/540. Global Climate Change.**
Cr. 3. An examination of the physical processes of global climate change, both past and future. The emphasis will be on the issues of future climate change, including greenhouse forcing and important atmospheric and oceanic feedback mechanisms. The course will also investigate local and regional climate changes resulting from land use, such as deforestation and desertification. In addition to discussing relevant literature, students will explore several climate data sets. Prerequisite: MET 215 and MATH 131 or 151.
- MET 480/580. Synoptic Scale Analysis and Forecasting.**
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 373.
- MET 481/581. Mesoscale Analysis and Forecasting.**
3+2, Cr. 4. Introduction to mesoscale meteorology and analysis, classification and forecasting challenges; analysis techniques; mechanically/thermally driven circulations, including land-sea 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 tornadoes; atmospheric discontinuities; drylines, outflow boundaries, fronts; introduction to atmospheric observing systems. Prerequisite: MET 480.

MET 486/586. 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. Prerequisites: meteorology major and consent of internship coordinator. S/U grade only.

MET 490/590. Selected Topics in Meteorology.

Cr. 1-3. Advanced studies in applied and theoretical meteorology, Topics such as weather systems analysis, micrometeorology and atmospheric observing systems may be considered. May be repeated when topic is different. Prerequisite: MET 103 and 216 and consent of instructor.

MET 495. Independent Study.

Cr. 1-3. 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.

MET 497. Honors Work in Meteorology.

Cr. 3. See Honors Work, page 54.

MET 498. Honors Candidacy in Meteorology.

Cr. 3. See Honors Work, page 54.

History

Professors Austensen, Berg, Rittgers; Associate Professors Schaefer, Seguin (Chair); Assistant Professors Blacker-Hanson, Bloom, Ostoyich, Whitefield.

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 operates under the assumption that the past is of fundamental importance in today's decision-making and in formulating 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 a time to explore a variety of subjects.

Major. A minimum of 30 credit hours in history constitutes a major. Courses must include HIST 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

HIST 390 or HIST 492 may be used to fulfill a field requirement if the topic is appropriate.

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 200 and 210. Nine of the remaining 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. Prelaw students who are taking a major in history should consult their advisor 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.

Note: The survey courses, HIST 200 through 250, may be used to fulfill the Philosophical and Historical Studies component of the General Education Requirements. HIST 232, 240, 242, and 250 may be used to fulfill the Global Cultures and Perspectives component of the General Education Requirements.

HIST 200. Developments in Western Culture through the Ages.

Cr. 3. A study of the social, intellectual, cultural, and political history of the Western world from ancient Greece to the eve of World War I.

HIST 210. The World in the Twentieth Century.

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.

HIST 212. Historiography and Methods.

Cr. 3. Developments in American, European and Non-western historiography will be studied. In addition, this course offers a practicum in historical research methods as well as opportunities to formulate your own historiographic interpretations. Restricted to sophomore or above history majors. Prerequisite: one history class.

HIST 215. Medieval Europe.

Cr. 3. A survey of Europe in the Middle Ages with particular emphasis on feudalism, chivalry, religion and religious persecution, early state formation, and the Black Death.

HIST 220. The American Experience to 1877.

Cr. 3. A survey of American history from the Columbian exchange through the end of Reconstruction, with emphasis on cultural contact, democratic ideals and realities, western expansion, and sectional conflict.

HIST 221. The American Experience in the Modern World.

Cr. 3. A survey of American history from Reconstruction to the present, with emphasis on industrialization, reform movements, immigration, civil rights, and global wars.

HIST 225. Alternative Perspectives of United States History.

Cr. 3. An examination of oppression, resistance, and identity formation in African American, American Indian, Latino, or Asian American culture. 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. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

HIST 232. Survey of Latin American History.

Cr. 3. A survey of Latin American history, encompassing indigenous civilizations, the Spanish colonial period, and national histories, with emphasis on enduring colonial patterns in the region's government, economy, gender and race issues, and church-state relations. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

HIST 240. Introduction to East Asian Culture.

Cr. 3. An exploration of the main political, social, and cultural values in traditional China, Japan, Korea, and Vietnam and of the ways that they flourish today. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

HIST 250. African History and Society.

Cr. 3. A survey of pre-colonial and colonial African history that highlights the diversity of African societies. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

HIST 351. 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 only.

Note: The courses listed below require at least sophomore standing or consent of the Chair of the Department.

EUROPEAN HISTORY**HIST 304/504. European Imperialism and the Colonial Experience.**

Cr. 3. A study of European theories of imperialism will be investigated as they were implemented in specific colonies throughout the Americas, Africa, Eurasia, and Asia. Particular attention will be given to the historical and psychological experience of being colonial master or servant by drawing on film, novels, and post-colonialist literature. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

HIST 310/510. Greek Civilization.

Cr. 3. (Also offered as CLC 310). A study of Greek civilization from the late Bronze Age through the Hellenistic period, with emphasis on political, social, and cultural developments. No knowledge of Greek or Latin required. Prerequisite: sophomore standing or consent of the Chair of the Department.

HIST 311/511. Roman Civilization.

Cr. 3. (Also offered as CLC 311.) A study of Roman civilization from the 8th century B.C. to the Council of Nicea in A.D. 325, with emphasis on political, social, and cultural developments. No knowledge of Greek or Latin required. Prerequisite: sophomore standing or consent of the Chair of the Department.

HIST 312/512. Europe in the Age of Reformation.

Cr. 3. (Also offered as THEO 320/520.) A study of the political, socioeconomic and religious conditions in Europe during the Reformation movements of the sixteenth century, with emphasis on popular piety, gender relations, and missionary activity.

HIST 313/513. History of Modern Britain.

Cr. 3. An overview of British history from the Glorious Revolution to the present. Particular attention is given to industrialization, sex and gender in the Victorian era, social reform, imperialism, Anglo-Irish relations, and World Wars I and II.

History

HIST 315/515. Contemporary Europe: Century of Violence.
Cr. 3. A study of twentieth-century Europe, with emphasis on relations between Nazi Germany and Europe, including the USSR and the United States where applicable. The course explores the rise of ideologies such as nationalism, communism and fascism, the major wars, and the dominant issues associated with the post-World War II world.

HIST 319/519. Imaging Revolution in Modern Russia.
Cr. 3. Visual and literary representation of twentieth century Russia supplemented by historical narrative. It begins with the Russian Revolution, moves through the "Stalin Revolution," to the demise of Stalin himself.

HIST 460/560. The Old Regime and the French Revolution.
Cr. 3. A detailed study of the causes and effects of the French Revolution. Topics discussed include the Enlightenment, social conditions, the monarchy, human rights, and the Napoleonic Era. Seminar discussions will be based on both primary and secondary source readings.

HISTORY OF THE AMERICAS

HIST 320/520. Colonial America.
Cr. 3. A detailed study through readings and discussion of the major issues in colonial life. Topics will range from contact with Native Americans, to the Salem witch trials, to the origins of slavery. Students will examine European settlement patterns in the four regions of British North America, including family, religious, and political life. The course will conclude by studying the social, military, and political strain placed on colonial institutions by the Seven Years' War.

HIST 321/521. The American Revolution, 1763-1789.
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 postwar problems culminating in the adoption of the Constitution.

HIST 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.

HIST 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.

HIST 325/525. The Age of Anxiety: United States since 1945.
Cr. 3. An examination of the post war American response to the prospect of living in an uncertain world.

HIST 327/527. History of Chicago.
Cr. 3. A study through readings and discussion of Chicago's development from a frontier village to a bustling town to the "Second City" to a postindustrial metropolis.

HIST 331/531. Ideas and Power in Latin American History.
Cr. 3. A study of the relationship between ideas and power in Latin America. Using primary sources and important works that have conditioned the way Latin Americans view their world, the course looks at the intellectual impact of the European discovery of America, the nature of the new world, the nineteenth century idea of progress, and the significance of modernism, *indigenismo*, Marxism, anarcho-syndicalism, and liberation theology. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

HIST 394/594. Beats and Hippies.
Cr. 3. A study of the nature of post-World War II American culture through the examination of a cross section of its critics. Course materials include writings of poets, novelists, essayists, and journalists as well as collections of photos, documentaries, and commercial films.

NON-WESTERN HISTORY

HIST 341/541. Revolution and Its Roots: The Making 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. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

HIST 342/542. Tragedy and Triumph: The Making of Modern Japan.
Cr. 3. A study of Japan's rise to its position as a world power, the tragedy of the war period, and its triumph as an economic power in the postwar world. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

HIST 350/550. Colonialism and Independence: Understanding Modern Africa.
Cr. 3. A topical study of Africa's struggle for political, economic, and cultural identity in the twentieth century with emphasis on exploring new historiographical methods emerging in African/world history. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

HIST 355/555. Modern Middle Eastern History.
Cr. 3. A retrospective look through documents, films, and literature at the history of the region beginning with the rise of Islam and the legacy of early splinter movements that profoundly impact twentieth century history. Particular attention is given to the breakup of the Ottoman Empire and the rise of Zionism in order to contextualize the Arab-Israeli conflict. Lastly, individual countries are studied to enhance understanding of the Middle East's influence on international affairs. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

SPECIALIZED OFFERINGS

HIST 386. Internship in History.
Cr. 3. Students gain experience working for an organization that utilizes historical applications. Such organizations might include historical museums and historical parks. Prerequisite: junior standing and application in writing to department chair a semester in advance.

HIST 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. Appropriate topics may be designated to fulfill the requirement in European history, history of the Americas, or non-Western history.

HIST 393/593. History through Film.
Cr. 3. A study of the relationship among history, film, and theory in a specific geographical and chronological context. 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 30-hour major.

HIST 489. The Teaching of Social Studies.
Cr. 3 (See ED 489.) A study of methods of teaching social studies in secondary schools. A field component is required. Prerequisite: admission to Teacher Education. This course may not be counted toward a major or minor in the Department.

HIST 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. Appropriate topics may be designated to fulfill the requirement in European history, history of the Americas, or non-Western history. Prerequisite: junior or senior standing or consent of the Chair of the Department.

HIST 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. Prerequisite: history major with junior or senior standing. Offered in the fall semester only.

HIST 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.

HIST 497. Honors Work in History.
Cr. 3. See Honors Work, page 54.

HIST 498. Honors Candidacy in History.
Cr. 3. See Honors Work, page 54.

International Economics and Cultural Affairs

Administrative Committee:
 Professor Trost (Political Science);
 Associate Professors Ames (Foreign
 Languages and Literatures, Chair),
 Duvick (Foreign Languages and
 Literatures), Kilpinen (Geography and
 Meteorology); Assistant Professors
 Kavanagh (Foreign Languages and
 Literatures), Malchow (Foreign
 Languages and Literatures), Raman
 (Economics), Whitefield (History).

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-
 21 credit hours beyond course number 203
 (varies by language); Economics, 15 credit
 hours; appropriate courses in Geography,
 History, and Political Science, 18 credit
 hours. See course listing below.

A senior seminar of one credit (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).

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 54).

Any departmental major or departmental
 minor may be added to the International
 Economics and Cultural Affairs program, with
 the exception of an Economics 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 200 Japanese Literary Studies or EAST 395 Chinese Culture and Civilization	3 Cr.

FRENCH

FLF 204 French Composition and Conversation I	4 Cr.
FLF 220 Approaches to French Literature . . .	3 Cr.
FLF 232 French Civilization from 1870 to the Present	3 Cr.
FLF 306 Contemporary French Language and Communication	4 Cr.
FLF 307 Professional French	3 Cr.

GERMAN

- FLGR 204 German Composition and Conversation I 4 Cr.
- FLGR 220 Approaches to German Studies 3 Cr.
- FLGR 232 German Civilization 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 or
FLJ 200 Introduction to Japanese Literature 3 Cr.

SPANISH

- FLS 204 Spanish Composition and Conversation 4 Cr.
- FLS 220 Selected Readings in Hispanic Literature 4 Cr.
- FLS 230 Spanish Civilization or
FLS 231 Spanish-American Civilization 4 Cr.
- FLS 306 Contemporary Hispanic Society Through Communications 4 Cr.
- FLS 307 Professional Spanish 3 Cr.

Economics

- ECON 221 Principles of Economics-Micro 3 Cr.
- ECON 222 Principles of Economics-Macro 3 Cr.
- ECON 236 Comparative Economic Systems 3 Cr.
- ECON 326 International Economics 3 Cr.
- ECON 336 Economics of Developing Nations 3 Cr.

Geography

- Take two of the following three courses 6 Cr.
- GEO 201 Economic Geography 3 Cr.
- GEO 301 Regional Geographies of the World (Appropriate regional offering) 3 Cr.
- GEO 470 Political Geography 3 Cr.

History

- Take one of the following groups of courses 6 Cr.
- HIST 232 Survey of Latin American History 3 Cr. and one of:
HIST 331 Ideas and Power in Latin American History
HIST 390 Topics in History (when topic is Latin America) 3 Cr.
- or
HIST 210 The World in the Twentieth Century 3 Cr.
- HIST 315 Contemporary Europe: Century of Violence 3 Cr.
- or
HIST 341 Revolution and Its Roots: The Making of Modern China 3 Cr.
- HIST 342 Tragedy and Triumph: The Making of Modern Japan 3 Cr.

Political Science

- POLS 130 Comparative Politics or
POLS 230 International Relations 3 Cr.
- POLS 330 Politics of Industrialized States or
POLS 335 Politics of Developing States 3 Cr.

IECA 486. Internship.
Cr. 1-4. Direct, supervised experience in a cooperating business, government agency, or service agency, abroad or in the United States. Prerequisite: consent of the Chair of the Program.

IECA 493. Senior Seminar.
Cr. 1. A course required of all senior majors in International Economics and Cultural Affairs in which students explore a central topic, learn research methodology, and prepare the proposal and outline for their senior independent research project (IECA 495). Prerequisite: senior standing or consent of the Chair.

IECA 495. Senior Independent Research Project.
Cr. 3. Senior IECA majors write a major research paper on a topic identified in IECA 493, Senior Seminar. Prerequisite: IECA 493, and senior standing or consent of the Chair.

IECA 497. Honors Work in International Economics and Cultural Affairs.
Cr. 3. See Honors Work, page 54.

IECA 498. Honors Candidacy in International Economics and Cultural Affairs.
Cr. 3. See Honors Work, page 54.

International Service

Administrative Committee:
Professor Trost (Political Science);
Associate Professors Evans (Biology),
Kilpinen (Geography and
Meteorology), Schaefer (History,
Chair).

Students who complete the International Service Program Major of 50-51 credits will have fulfilled major area requirements for the Bachelor of Arts degree under the Interdisciplinary Program Option.

Objectives. This interdisciplinary program is designed for students considering careers with international humanitarian and development organizations and agencies or students who wish to equip themselves for international service as they prepare for a different primary career. It provides background in the concept of service, in social policy and global issues, and in the learning and practice of service.

Program requirements. A minimum of 50 credit hours in courses approved by the Administrative Committee. Courses must include the Introductory Courses (6 credit hours), the Service Learning Core (3 credits of Political Science, 6 credits of Social Work and 9 credits of Theology), the Regional Emphasis (7-8 hours of Foreign Language beyond course number 103 and 6 credits in one Area Studies concentration), and the Support Core (6 credit hours). See course listing below. Additional regional or support core courses may be approved by the Chair on an ad hoc basis.

Majors are required to do the International Service-Learning Internship (ISP 486) for three credits, and if the internship is abroad, must participate in preparation and reentry instruction for the internship (GLST 484 and GLST 485). The Senior Seminar is required in the senior year.

Complementary Major. A student fulfilling major field requirements under a Major Option in another field may present as a second major the International Service Complementary Major of a minimum of 29 credit hours. Courses must include GLST 150, SOCW 210 and 330, two courses from the Theology of Service Issues and Theory

category, the Regional Emphasis (Foreign Language course 203 or 204 and 3 credits from an Area Studies concentration), and one Support Core course (3 credits). See course listing below.

Complementary majors take the International Service-Learning Internship for from 1 to 3 credits, and if the internship is abroad, must participate in preparation and reentry instruction for the internship (GLST 484 and GLST 485), and must take the Senior Seminar in the senior year.

Introductory Courses

GLST 150 Global Perspectives	3 Cr.
ECON 136 Economics of Health, Education, and Welfare	3 Cr.

Service Learning Core

POLS 230 International Relations	3 Cr.
SOCW 210 Social Welfare: Policy and Services	3 Cr.
SOCW 330 Vulnerable Populations	3 Cr.

Theology of Service Issues and Theory (select two courses):

THEO 330 Topics in Contemporary Theology (when topic is approved)	3 Cr.
THEO 337 Black Theology and Black Church	3 Cr.
THEO 353 Studies in Theology and Practice (Christian Faith and Contemporary Politics; Christian Response to Social Victims; or other approved topic)	3 Cr.
THEO 357 The Church in the World	3 Cr.
THEO 358 Studies in Theology, Health, and Healing (Medical Missions or other approved topic)	3 Cr.
THEO 451 Theology of Diaconal Ministry	3 Cr.
THEO 490 Topics in Theology (when topic is approved)	3 Cr.

Theology of World Religions (select one course from this category or an additional course from the above category):

THEO 362 Understanding Islamic Religion and Culture	3 Cr.
THEO 363 Religions of China and Japan	3 Cr.
THEO 364 The Buddhist Tradition	3 Cr.
THEO 365 Religion in Africa	3 Cr.

Regional Emphasis

Foreign Language appropriate for the region:
 French, German or Spanish 204 and 4 Cr.
 One elective numbered above 204 3-4 Cr.
 Chinese or Japanese 203 and 4 Cr.
 Chinese or Japanese 204 4 Cr.

Two courses with the same regional focus as the foreign language:

EUROPE

HIST 315 Contemporary Europe: /Century
 of Violence 3 Cr.
 GEO 301 Regional Geography: Europe 3 Cr.
 POLS 330 Politics of Industrialized States 3 Cr.
 FLF 232 French Civilization from 1870 3 Cr.
 or FLGR 232 German Civilization
 since 1800 3 Cr.
 or FLS 230 Spanish Civilization 4 Cr.

LATIN AMERICA

HIST 232 Survey of Latin American History 3 Cr.
 or HIST 331 Ideas and Power in Latin
 American History 3 Cr.
 or FLS 231 Spanish American
 Civilization 4 Cr.
 GEO 301 Regional Geography: Latin America 3 Cr.
 POLS 335 Politics of Developing States 3 Cr.
 FLS 250 Hispanic Literature and Arts 3 Cr.
 SOC 330 Points of Intersection (Puebla) 3 Cr.

AFRICA

GEO 301 Regional Geography: Africa 3 Cr.
 HIST 250 African History and Society 3 Cr.
 HIST 350 Modern African History 3 Cr.
 POLS 490 Topics (when topic is Africa) 3 Cr.
 Namibia Study Center (appropriate
 course) 3 Cr.

ASIA

HIST 240 Introduction to East Asian Culture 3 Cr.
 or HIST 341 Revolution and its Roots:
 The Making of Modern China 3 Cr.
 or HIST 342 Tragedy and Triumph:
 The Making of Modern Japan 3 Cr.
 GEO 301 Regional Geography: Asia 3 Cr.
 POLS 490 Topics (when topic is Asia) 3 Cr.
 ECON 390 (when topic is Asia) 3 Cr.

Support Core

Each student develops a support core in consultation with the ISP advisor. The following courses have prior approval (courses with an asterisk have prerequisites):

BIO 205 Fundamental Nutrition 3 Cr.
 BIO 260 Human Nutrition* 3 Cr.
 ECON 223 Principles of Economics-
 International 3 Cr.
 ECON 233 Economics of Race and Gender 3 Cr.
 ECON 236 Comparative Economic Systems 3 Cr.
 ECON 326 International Economics* 3 Cr.
 ECON 336 Economics of Developing Nations* 3 Cr.
 ENGL 389 Teaching English as a Second Language 3 Cr.
 GEO 470 Political Geography 3 Cr.
 PHIL 220 Non-Western Philosophy 3 Cr.
 POLS 360 Public Administration* 3 Cr.

PSY 390 Topic: Cross-Cultural Psychology 3 Cr.
 SOC 347 Race and Ethnic Relations 3 Cr.
 NUR 318 Global Health Issues 3 Cr.

Service Learning Internship

GLST 484 The International Experience--
 Preparation 0.5 Cr.
 GLST 485 The International Experience--
 Reentry 0.5 Cr.
 ISP 486 International Service-Learning
 Internship 1-3 Cr.
 ISP 493 International Service Senior Seminar 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. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

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.

ISP 486. International Service-Learning
Internship.

Cr. 1-3. Students gain experience through placement with an organization or agency involved in international service. Prerequisites: junior standing and application in writing to the Chair one semester in advance. Generally taken concurrently with a study-abroad semester. S/U grade only.

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 complementary majors. Prerequisite: senior standing or consent of the Chair.

Mathematics and Computer Science

Professors Caristi, Gillman (Chair), Marion; Associate Professors Hull, Hume, J. Lehmann, Luther, Sullivan, Szaniszló, Wagenblast; Assistant Professors Glass, Marrero; Instructors Crawford, Drew, Stockdale.

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. Careers in computer science include systems programming, applications programming and data management.

Mathematics

Major. A minimum of 36 credit hours in mathematics constitutes a major. Students must complete the core, survey elective, theory electives, and advanced electives as specified below:

Core: MATH 131 or 151, 132 or 152, 264, 265, 199, 299, 399, and 499.

Survey Elective: One course chosen from MATH 240, 253, or 269.

Theory Electives: Two courses chosen from MATH 451, 461, 421 and one course chosen from MATH 452, 462, 422.

Advanced Electives: Three additional courses of 3 credits or more numbered above 300.

Mathematics majors must complete CS 156 or 157 and are also strongly encouraged to take CS 158. Students should enroll in the appropriate section of MATH 199, 299, 399, or 499 each semester.

Degree. Completion of the degree requirements of the College of Arts and Sciences with a major in mathematics leads to a Bachelor of Arts or a Bachelor of Science degree. A student having a mathematics major in view should begin mathematics in the freshman year.

Complementary Major. A student with a first major in another discipline may take a complementary major in mathematics. A minimum of 30 credit hours in mathematics constitutes a complementary major. Students must complete the core, survey elective, theory elective and advanced electives as specified below.

Core: MATH 131 or 151, 132 or 152, 264, 265, 199, 299, 399, 499.

Survey Elective: MATH 240, 253, or 269.

Theory Elective: MATH 451, 461, or 421.

Advanced electives: Three additional courses of 3 credits or more numbered above 300. Students should enroll in the appropriate section of MATH 199, 299, 399, or 499 each semester.

Recommended Electives: Students interested in the following areas of study should choose the recommended electives.

Actuarial Science: Students can prepare themselves for the first two actuarial examinations by completing an appropriate sequence of courses. See page 59 for a description of this major.

Secondary Education: MATH 240; MATH 461, 421, (462 or 422); MATH 314, 312, and one more course.

Statistics: MATH 240; MATH 421, 422, (451 or 461); MATH 341, 342, 344.

Operations Research: MATH 240; MATH 320, 322, 344, 421, 422, 451.

Scientific Mathematics: MATH 253; MATH 451, 452, 461; MATH 430, 434, one more course.

Preparation for Mathematics in Graduate School: MATH 253; MATH 451, 452, 461, 462; MATH 434, one more course.

Minors. A minimum of 15 credit hours in mathematics, including at least 7 credits numbered above 220, constitute a minor in mathematics.

See page 235 for a description of the Applied Statistics Minor.

Teaching Programs. Students who plan to teach mathematics in middle or secondary schools with a major or minor in Mathematics should consult the Chair of the Department and the Education Department for specific requirements.

Cooperative Education. Qualified students may combine semesters of professional experience with other semesters of traditional academic studies, usually lengthening their college education beyond the normal eight semesters. During the semesters of their employment, students are financially reimbursed by the cooperating employer and receive college credit. This program normally commences at the end of the sophomore year and consists of two semesters plus three summers of full time employment with the same company. Two credits in mathematics are granted for each semester and one for each summer. These credits may not be counted toward the minimum required for the major and cannot replace a required course, with the exception of MATH 399/499. To qualify, students must possess a minimum 2.50 cumulative grade point average and a 2.50 grade point average in all required Mathematics courses taken prior to participation in the program.

Placement and Special Credit. Before registration, each new student will take a placement exam. The Department of Mathematics and Computer Science will recommend which course(s) each student should take. A student who is recommended for MATH 110 may not take any other Mathematics or Computer Science course without the consent of the Chair of the Department.

Qualified students may also take a Calculus Placement Exam. A student who is placed into MATH 132 will receive 4 credits for MATH 131 and 4 credits for MATH 132 by passing MATH 132 with a grade of C or higher.

Credit by Examination. Credit for MATH 131 and 132 may be earned through the College Level Examination Program subject examination in Introductory Calculus and through the AP calculus program.

Approval of Schedules. All students taking a major or minor in the Department must have their schedules approved by the Chair of the Department or his/her representative before registration each semester.

MATH 110. Quantitative Problem Solving. 2+2, Cr. 3. (See paragraph on Placement.) 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. This course may not be taken by a student with credit for any other mathematics course.

MATH 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.

MATH 120. Mathematical Ideas. Cr. 3. (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. May be used to fulfill the Quantitative Analysis component of the General Education Requirements. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

MATH 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 their applications, integrals and their applications and selected topics in multivariate calculus. Not open to students with credit for MATH 131 or 151. May be used to fulfill the Quantitative Analysis component of the General Education Requirements. Prerequisite: MATH 114 or placement of MATH 122, 131, or 151 on the math placement examination.

Mathematics

MATH 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. May be used to fulfill the Quantitative Analysis component of the General Education Requirements. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

MATH 131. Analytic Geometry and Calculus I.

3+2, 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. Topics include limits, continuity, differentiation, application of the derivative, The Intermediate Value Theorem, definite integrals and The Fundamental Theorem of Calculus. Not open to students with credit for MATH 122 or 151. May be used to fulfill the Quantitative Analysis component of the General Education Requirements. Prerequisite: MATH 114 or placement of MATH 131 or 151 on the math placement examination.

MATH 132. Analytic Geometry and Calculus II.

3+2, Cr. 4. A continuation of MATH 131. Topics include techniques of integration, applications of the definite integral, improper integrals, convergence of sequences and series, Taylor series, and calculus of transcendental functions. Not open to students with credit for MATH 152. Prerequisite: MATH 131 or 151.

MATH 140. General Statistics.

Cr. 3. (See paragraph on placement.) A non-calculus based introduction to the major concepts and tools for collecting, organizing, analyzing and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, planning a study, anticipating patterns, and statistical inference. Offered only for AP credit in statistics with a score of 4 or higher. May be used to fulfill the Quantitative Analysis component of the General Education Requirements.

MATH 151. Calculus I - Honors.

3+2, Cr. 4. (See paragraph on Placement.) A first course in the calculus sequence designed for students interested in an intensified calculus course with exceptional preparation in algebra and trigonometry. Topics include those of MATH 131, with a stronger emphasis on theory and on techniques of mathematical proof. Not open to students with credit for MATH 122 or 131. May be used to fulfill the Quantitative Analysis component of the General Education Requirements. Prerequisite: placement of MATH 151 on the math placement examination, or MATH 114 and consent of instructor.

MATH 152. Calculus II - Honors.

3+2, Cr. 4. A continuation of MATH 151. Topics include those of MATH 132, with a stronger emphasis on theory and on techniques of mathematical proof. Not open to students with credit for MATH 132. Prerequisite: MATH 151 or consent of the instructor.

MATH 168. Discrete Structures I.

Cr. 3. (Also offered as ECE 357.) An introduction to mathematical reasoning algorithm analysis and the concepts that provide a mathematical foundation for computer science. Topics include logic; sets; functions; order notation; proof techniques, including mathematical induction; elementary counting techniques; iterative and recursive algorithms; elementary complexity analysis and applications. Prerequisite: CS 157; corequisite: MATH 122 or 131 or 151.

MATH 199. Mathematics Colloquium I.

Cr. 0. All freshmen mathematics majors must register for this course in both the fall and spring semesters. Students are required to attend sessions of MATH 499 and participate in the activities and discussions of the colloquium. S/U grade.

MATH 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 correspond to those in MATH 213. Enrollment is restricted to students majoring in elementary education. Prerequisite: concurrent registration in MATH 213. S/U grade.

MATH 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.

MATH 213. Mathematics for Elementary Teachers I.

Cr. 4. (See paragraph on Placement.) 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.

MATH 214. Mathematics for Elementary Teachers II.

Cr. 4. A continuation of MATH 213. Topics include two- and three-dimensional geometry, measurement, functions, graphing, probability and statistics. Prerequisite: Mathematics 213.

MATH 234. Differential Equations and Linear Algebra.

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.

MATH 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.

MATH 253. Calculus III.

Cr. 4. A continuation of MATH 132 or 152. Topics include conic sections, vector algebra, space curves, calculus of functions of several variables, multiple integration, calculus of vector fields. Prerequisite: MATH 132 or 152.

MATH 264. Linear Algebra I.

Cr. 3. The purpose of this course is twofold: 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 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 counter examples. 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 168.

MATH 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 132 (or MATH 152) and MATH 264.

MATH 269. Discrete Structures II.

Cr. 3. A continuation of MATH 168. Topics include relations; matrices; recurrence equations; basic discrete probability; elementary graphs and trees; additional complexity analysis (worst and average) and finite state automata. Prerequisites: MATH 168 and CS 158.

MATH 285. Practicum in Mathematics.

Cr. 0.5-3. Intensive professional experience and/or technical training in a mathematics related

field. A written report is required. S/U grade.

Prerequisite: MATH 264 and consent of the chair.

MATH 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.

MATH 299. Mathematics Colloquium II.

Cr. 0. All sophomore mathematics majors must register for this course in both the fall and spring semesters. Students are required to attend sessions of MATH 499 and participate in the activities and discussions of the colloquium. S/U grade. Prerequisite: MATH 199.

MATH 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.

MATH 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.

MATH 320. Mathematical Models in the Life and Environmental Sciences.

Cr. 3. A course on the theory behind, and design and solution of, mathematical models. Theory includes discrete and continuous models, steady state and transient models, deterministic and stochastic models, modeling by differential and difference equations, Markov chains, game theory, and curve fitting. Applications are drawn mostly from the life and environmental sciences, and include compartment models, population models, ecological models, and hydrologic models. Prerequisite: MATH 132 or 152. Offered in alternate years.

MATH 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 264. Offered in alternate years.

MATH 340. Statistics for Decision Making.

Cr. 3. (Also offered as IDS 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, and nonparametric methods. Prerequisite: MATH 240 or IDS 205 or CE 202 or completion of or concurrent registration in ECE 365.

Mathematics

MATH 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 240 and (132 or 152).

MATH 342. Mathematical Statistics.

Cr. 3. This course continues the study of probability and covers statistics based on the background of MATH 341. Topics include multivariate probability distributions with an introduction to multivariable calculus, joint and conditional distributions, Central Limit Theorem, covariance, moments, estimation, tests of hypotheses, and sampling theory. Prerequisite: MATH 341.

MATH 344. Applied Probability and Statistical Decision Theory.

Cr. 3. A survey of probabilistic models used in decision theory. Topics include stochastic processes, queuing theory, forecasting, Bayesian decision theory, reliability, and simulation. Prerequisites: MATH 240 or IDS 205.

MATH 381. Cooperative Education in Mathematics.

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. May be repeated for additional credit. Prerequisite: MATH 265 or approval of the Chair of the Department. S/U grade.

MATH 399. Mathematics Colloquium III.

Cr. 0. All junior mathematics majors must register for this course in both the fall and spring semesters. Students are required to attend sessions of MATH 499 and to participate in the activities and discussions of the colloquium. Prerequisite: MATH 299. S/U grade.

MATH 421. Combinatorics I.

Cr. 3. Theory of combinatorics, including elementary counting techniques, generating functions, Polya's Theorem, and an introduction to graph theory. A variety of applications are discussed depending on the interests of the students. Prerequisite: MATH 264.

MATH 422. Combinatorics II.

Cr. 3. A continuation of MATH 421, with topics selected from Ramsey Theory, coding theory, algorithmic graph theory and network theory. Prerequisite: MATH 421 or consent of the instructor.

MATH 430. Fourier Series and Boundary Value Problems.

Cr. 3-4. Fourier representation of functions. Generalized orthogonal sets of functions including Bessel Functions and Legendre polynomials. Fourier, Fast Fourier, and LaPlace transforms. An introduction to distributions. A variety of applications depending on the interests of the students. Prerequisites: MATH 253 and (234 or 265).

MATH 434. Introduction to Complex Variables.

Cr. 3. Analytic functions, derivatives, power and Laurent series, integrals, residues, conformal mapping, applications to partial differential equations. Prerequisite: MATH 253 and (234 or 264).

MATH 451. Analysis I.

Cr. 3. Properties of real numbers; theory of continuity, differentiation and integration of real-valued functions of a real variable; sequences, series, and uniform convergence. Prerequisites: MATH 152 and 264.

MATH 452. Analysis II.

Cr. 3. Theory of continuity and differentiation of real and vector-valued multi-variable functions; multiple integration and the Jacobian; implicit and inverse function theorems; topology of real n -space. Prerequisites: MATH 253 and 451.

MATH 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.

MATH 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.

MATH 489. The Teaching of Mathematics.

Cr. 3. (See ED 489.) A study of the methods of teaching mathematics in secondary schools. A field component is required. Prerequisite: admission to Teacher Education. This course may not be counted toward a major or minor in Mathematics.

MATH 491. Advanced Topics in Mathematics.

Cr. 1-3. 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.

MATH 492. Research in Mathematics.

Cr. 1-3. 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. S/U grade.

MATH 493. Seminar in Applied Statistics.

Cr. 3. (Also offered as ECON 493 and as IDS 493.) An intensive study of selected topics, methods, techniques, and problems in applied statistics. Prerequisite: MATH 340 or IDS 340 or ECON 325.

MATH 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.

MATH 497. Honors Work in Mathematics.
Cr. 3. See Honors Work, page 54.

MATH 498. Honors Candidacy in Mathematics.
Cr. 3. See Honors Work, page 54.

MATH 499. Mathematics Colloquium IV.
Cr. 1. Student presentation of selected topics in mathematics arising from the mathematical literature. Students are required to register for this course during one semester of their senior year and are encouraged to do so during the other semester. Prerequisite: MATH 399.

Computer Science

Major. A minimum of 32 credit hours in Computer Science constitutes a major. Courses must include CS 157, 158, 246, 257, 332, 347, 372, 493. The five remaining credits must be from Computer Science courses numbered 290 or above.

Majors must complete the following mathematics courses: MATH 131 or 151, 168, 240, and 269. 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 36.

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, and 257. The remaining Computer Science credits must come from CS 246 or courses numbered above 300. In addition, the student must complete either MATH 122, 131, or 151.

Cooperative Education. Credit in Computer Science may be obtained for cooperative education experiences relating 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 56.

CS 115. Computers and Computation.
Cr. 3. A general survey of central topics in computer science with emphasis on the scientific aspects of computation. This approach 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, modelling of data, and serial and parallel computation will be introduced to demonstrate how computing relates to other disciplines. Experiments in a laboratory environment will be part of the course. May be used to fulfill the Quantitative Analysis component of the General Education Requirements. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

CS 128. Introduction to Programming.
Cr. 1-3. An introduction to computer problem-solving techniques using a high level language. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement exam.

CS 156. Fundamentals of Programming.
2+2. Cr. 3. (Also offered as ECE 250.) A study of fundamental programming constructs, algorithms, data structures, and object orientation. An emphasis is placed on programming strategies and the application of computer algorithms to solve problems in engineering and mathematics. Students cannot receive credit for more than one of CS 156, CS 157, ECE 250 and ECE 251.

- CS 157. Algorithms and Programming.**
2+3, Cr. 3. (Also offered as ECE 251.) A first course in algorithm development and problem solving and an introduction to the use of a computer system with special emphasis on object-orientation. The student designs algorithms for the solution of elementary problems, and writes, documents, and debugs programs for the implementation of those algorithms. Techniques of software design and algorithm analysis are introduced. Students cannot receive credit for more than one of CS 156, CS 157, ECE 250 and ECE 251. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.
- CS 158. Algorithms and Abstract Data Types.**
2+3, Cr.3. (Also offered as ECE 252.) A continuation of CS 157, with emphasis on developing more skills in complex program development and data structures. Topics include stacks, queues and linked lists. Students design and write intermediate sized programs. Students cannot receive credit for both CS 158 and ECE 252. Prerequisites: CS 157 or ECE 251.
- CS 210. E-Commerce and E-Business Technology.**
Cr. 3. (Also offered as IDS 310.) This course offers an overview of potentials, policies, politics, possibilities, and pitfalls of electronic commerce (conducting business online) and electronic business (using information technology to manage the supply-chain), including hardware and software applications required for both. Prerequisite: junior standing and consent of the chair.
- CS 246. Computer Architecture and Programming.**
2+2, Cr. 3. 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.
- CS 257. Data Structures and Programming Languages.**
Cr. 4. A more detailed study of data structure and programming paradigms used in a variety of languages. Topics include trees, graphs, hash tables, object oriented programming, non-imperative languages, syntax and basic characteristics of grammars, parsing and run-time considerations. Prerequisites: MATH 131 or 151, CS 158 or ECE 252.
- CS 285. Practicum in Computer Science.**
Cr. 0.5-3. Intensive professional experience and/or technical training in a computing related field. A written report is required. Prerequisites: CS 257, CS 246 and consent of department chair. S/U grade.
- CS 290. Topics in Computer Programming.**
Cr. 1-2. The content of this course may change 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: specific requirements depend on course content; usually equivalent to CS 157.
- CS 320. Digital Logic Design.**
2.5+1.5, Cr. 3. (Also offered as ECE 221.) An introduction to digital logic concepts, including the analysis and design of combinational and sequential digital circuits.
- CS 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.
- CS 332. Databases and Artificial Intelligence.**
Cr. 4. An introduction to information models and systems, including relational and object-oriented database management systems, data modeling, knowledge representation, problem spaces, models of reasoning, non-symbolic artificial intelligence, and other topics in intelligent systems. Prerequisite: CS 257.
- CS 347. Operating Systems and Networking.**
Cr. 4. Introduction to the concepts of operating system and networks. Topics include procedures, processes, resource management, interrupt-driven processing, protocols for communicating messages, such as Transport Control Protocol and User Datagram Protocol, error detection, methods for routing messages, application protocols, such as HTTP and SMTP. Prerequisites: CS 246 and 257.
- CS 358. Software Design and Development.**
3+2, Cr. 4. The specification, design, implementation, documentation, testing and management of software systems. Intensive work on a group project, directed by the instructor, to design and develop a usable software system. Students will also learn fundamentals of graphics and graphical user interfaces. Prerequisite: CS 257.
- CS 365. Interactive Computer Graphics.**
Cr. 3. 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 257 is recommended) and MATH 122, 131, or 151.

CS 372. Computability and Computational Complexity.

Cr. 4. Emphasis on the limits to the power of computation and a systematic analysis of the algorithms that harness it. Computability topics include the Chomsky hierarchy, several automata and language models, and demonstrations of uncomputable problems. Complexity topics include various design strategies such as greedy, divide and conquer and backtracking, and fundamental computing algorithms, such as searching, sorting, graphs, trees, pattern matching and computational geometry, with a short foray into distributed algorithms. Prerequisites: CS 257 and MATH 269.

CS 381. Cooperative Education in Computer Science.

Cr. 0.5 - 3. The application of computer science concepts in a professional setting. Grade based on employer's evaluation and student's written and oral reports. Prerequisites: CS 257; approval of Cooperative Education Advisor and the Chair of the Department. S/U grade. May be repeated for additional credit.

CS 458. Senior Project.

Cr. 3. The student defines a suitable computer application, develops the necessary software using appropriate techniques and prepares documentation for the use and support of the completed system. An oral report is required. Prerequisites: CS 358, senior standing and a proposal approved by the Chair of the Department.

CS 491. Advanced Topics in Computer Science.

Cr. 1-3. An advanced course for computer science majors. The topic studied may change

from year to year. Possible topics: data communications and networks, supercomputers, parallel processing or computer architecture. Prerequisites: consent of the Chair of the Department. Specific course requirements depend on topic. Offered upon sufficient demand. Prerequisite: consent of the instructor.

CS 492. Research in Computer Science.

Cr. 1-3. The student undertakes a research problem in Computer Science under the direction of a faculty member. Written and oral reports are required. Prerequisite: consent of the Chair of the Department. S/U grade.

CS 493. Seminar in Professional Practices.

Cr. 2. Student and faculty presentations in the context of professionalism and ethical responsibilities in software development and human-computer interaction. Topics include laws, risks, and liabilities, codes of ethics, privacy, international and gender related issues, philosophical frameworks, and economic implications. Students will learn and develop oral presentation and research skills. Prerequisites: CS 246 and 257.

CS 495. Independent Study in Computer Science.

Cr. 1-3. The student studies an advanced topic in Computer Science under the direction of a faculty member. Written work is required. Prerequisite: consent of the Chair of the Department.

CS 497. Honors Work in Computer Science.

Cr. 3. See Honors Work, page 54.

CS 498. Honors Candidacy in Computer Science.

Cr. 3. See Honors Work, page 54.

Modern European Studies

Administrative Committee:
 Professors Olmsted (Christ College),
 Trost (Political Science, Chair);
 Associate Professors N. Corazzo
 (Art), Duvick (Foreign Languages and
 Literatures).

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 particularly 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 370 History of Economic Thought	3 Cr.
HIST 315 Contemporary Europe: Century	
of Violence	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 Renaissance to Modern Art History	3Cr.	HIST 313 History of Modern Britain	3Cr.
ART 318 19th Century European Art	3Cr.	HIST 319 Imaging Revolution in Modern Russia	3Cr.
ART 319 Early 20th Century European Art	3Cr.	HIST 351 Survey of English History and Culture (overseas program)	3Cr.
ECON 236 Comparative Economic Systems	3Cr.	HIST 352 Problems in Modern German History (overseas program)	3Cr.
ENGL 450 British Literature of the 19th Century	3Cr.	HIST 492 Readings and Discussion Seminars (when the topic is appropriate)	3Cr.
ENGL 456 The Novel	3Cr.	PHIL 280 Early Modern Philosophy	3Cr.
ENGL 460 Twentieth Century Drama	3Cr.	POLS 230 International Relations	3Cr.
ENGL 470 Twentieth Century Fiction	3Cr.	THTR 239 World Theatre and Drama II	3Cr.
ENGL 475 Twentieth Century Poetry	3Cr.		
FLF 222 French Literature from 1800 to the Present	3Cr.	MEUR 495. Independent Study.	
FLF 231 French Civilization to 1870	3Cr.	Cr. 3. An independently supervised course that	
FLF 232 French Civilization from 1870 to the Present	3Cr.	may be taken in any of the departments	
FLGR 222 Selected Readings in German Literature since 1800	3Cr.	participating in the Program. Students are	
FLGR 232 German Civilization since 1800	3Cr.	expected to produce a major paper involving at	
FLS 230 Spanish Civilization	3Cr.	least two of the disciplines included in the	
FLS 321 Spanish Literature	3Cr.	Program and meet the course criteria established	
GEO 301 Regional Geography: Europe	3Cr.	by the Administrative Committee. Before	
GEO 318 Field Study in European Geography (overseas program)	3Cr.	registering for the course, students must have	
GS 390 Topics in English Life and Culture (overseas program)	3Cr.	the approval of the supervising professors and	
GS 390 Topics in German Life and Culture (overseas program)	3Cr.	the Program Chair.	

Music

Professors Cock, Ferguson (Chair); Associate Professors Bernthal, Bognar, Brugh, Doebler, Friesen-Carper, Lewis; Assistant Professor Maytan; Adjunct Assistant Professors J.C. Brown, Maugans.

The Department of Music offers three degree programs: Bachelor of Arts, Bachelor of Music, and Bachelor of Music Education. The Bachelor of Arts may be pursued as a traditional liberal arts music major with an emphasis in Performance or Church Music or as an interdisciplinary track in Music Industry. Study of music may also be combined with the Deaconess Program (see page 53). 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 carries full teaching certification in a combination of vocal and instrumental music. Valparaiso University is an accredited institutional member of the National Association of Schools of Music.

Graduates from the Department of Music pursue careers of varied kinds: 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 are expected in most music-related professions. Some fields, such as music education, church music, and music business, 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 chances for success. The Music curriculum is designed to meet these expectations.

Admission. A performance audition and theory placement is required for entry into the music major or minor. 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, music colloquium, and the Keyboard Proficiency 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 components of the Liturgical Institute, and the Bach Institute. 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 designed 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 audiences in Northwest Indiana.

Bachelor of Arts

The Bachelor of Arts in music, the traditional liberal arts music track, allows time for a second major or a minor, if carefully planned; 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 40 credit hours in Music constitutes a major. All students must complete the 31-credit music core and one of the options listed below. The 31-credit music core must include the following courses: MUS 109, 110, 163, 164, 201, 263, 318, 319, 499; six credit hours in the student's principal performing medium (completion of MUS 203) and four credit hours of ensemble participation.

Performance-Liberal Arts Option. Music majors interested in emphasizing music performance, theory, and history may choose the Performance-Liberal Arts Option. This Option requires completion of the 31-credit music core (see above) plus the following: MUS 209 and MUS 264 or 463, and two courses selected from MUS 213, 309, 401.

Church Music Option. Music majors with a particular interest in church music are advised to complete the 31 credit music core (see above) plus the following: MUS 213, 313, 473, and an independent study (MUS 495) church music practical experience for a total of 40 music credits. Students in the church music option are required to complete 203 level in the primary performance medium and must also complete 103 level in piano or organ if the primary performance medium is not piano or organ.

Music Industry Option. This interdisciplinary concentration combines the 31 credit music core (see above), 9 additional credits in music (MUS 285, 385, 485, 486), and the minor in Business Administration (see page 235). The Music Industry Option is designed to prepare students for management positions in the manufacturing, publishing, distribution, and retailing aspects of the music industry.

Bachelor of Music Education

The General Education Requirements for this degree are given on page 47. Also required are PSY 110 and one course from COMM 145, 243 or THTR 141. The music requirements are outlined below:

Music Core	
MUS 109, 110, 209, 309 Musicianship	8 Cr.
MUS 163, 164, 263, 264 Music Theory	12 Cr.
MUS 201, 318, 319 History and Literature of Music	8 Cr.
MUS 213 Basic Conducting	2 Cr.
MUS 313 Intermediate Conducting	2 Cr.
Music Ensemble	6 Cr.
MUS 499 Music Colloquium	0 Cr.
Total	38 Cr.

Music Education Core	
Principal Instrument**	8 Cr.
Secondary Instrument*	5 Cr.
MUS 239	1 Cr.
MUS 231, 233, 235, 237	4 Cr.
MUS 312	2 Cr.
MUS 389	3 Cr.
MUS 489	3 Cr.
Total credits	26 Cr.
Total for graduation	140 Cr.

*Piano 2 Cr. and Guitar 1 Cr.; if principal instrument is piano, then Voice 2 Cr. and Guitar 1 Cr. (which may be fulfilled either by 1 Cr. of studio guitar or MUS 236, Guitar Methods).

**Completion of level 303 is required.

Bachelor of Music

For the General Education Requirements for this degree, see page 47. The music requirements are outlined below:

Music Core	
MUS 109, 110, 209, 309 Musicianship	8 Cr.
MUS 163, 164, 263, 264 Music Theory	12 Cr.
MUS 201, 318, 319, 401 History and Literature of Music	10 Cr.
MUS 213 Basic Conducting	2 Cr.
MUS 463 Twentieth Century Techniques	3 Cr.
MUS 464 Studies in Counterpoint	3 Cr.
Music Ensemble	8 Cr.
MUS 499 Music Colloquium	0 Cr.
Total	46 Cr.

Other Requirements			
Program:	Church Music		Composition
	ORGAN	VOICE	
MUS 312	-	-	2
MUS 313	2	2	2
MUS 404	1+2	1+2	-
MUS 415	2	2	-
MUS 454	1	1	-
MUS 473	3	3	-
Composition	-	-	12
Performance Study*	-	-	12
Piano	4	-	-
Organ	20#	8	-
Voice	4	20#	-
Total credits	40	40	28
Elective credits	4	4	7
Total required	136	136	128

*Performance study requires completion of level 203 in a primary performing area and completion of level 103 in piano or organ if primary performing area is not one of these. Up to 5 credits of performance study may be fulfilled with instructional methods courses (at 1 credit).

Program:	Performance			
	ORGAN	PIANO	VOICE	INSTRUMENT
MUS 058	-	2	-	2
MUS 313	-	-	2	2
MUS 220-223	-	-	3	-
MUS 404	1+2	1+2	1+2	1+2
MUS 423	2	2	-	2
MUS 454	1	1	1	1
Piano	4	-	4	-
Principal Instrument	20#	20#	20##	20#
Total	30	28	32	30
Elective credits	5	7	2	5
Total required	128	128	128	128

#Completion of MUS 453 is required.
##Completion of MUS 453 is required; the total may include MUS 239.

Music Minor. A minimum of 16 credit hours in Music constitutes a minor. Courses must include MUS 109, 110, 163, 164, and 201 and four credit hours of studio instruction (completion of MUS 103).

Music

THEORY, HISTORY AND METHODS

MUS 101. Introduction to Music.

Cr. 3. A study of the basic forms and styles of musical art in Western civilization and in non-Western cultures. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

MUS 102. Fundamentals of Music.

Cr. 1. A course for students who plan to take a music theory sequence. Topics include fundamentals of note-reading, rhythmic notation, scale and melody, and intervals. 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 or be counted toward a major or minor in music. Available only for students identified through the Music Theory Placement Exam.

MUS 109. Musicianship I.

2+1, Cr. 2. A practical course in which basic musicianship is developed through sight singing, dictation and guided listening. An introduction to non-Western music is included. The course is usually taken concurrently with MUS 163.

MUS 110. Musicianship II.

2+1, Cr. 2. A practical course in which basic musicianship is developed through sight-singing, dictation and guided listening. An introduction to jazz forms is included. Prerequisite: MUS 109.

MUS 163. Music Theory I.

Cr. 3. A course in the fundamentals of music which emphasizes the development of analytical and listening skills. Topics include notation, elements of pitch and rhythm, harmonic organization, and part writing. Prerequisite: concurrent enrollment in MUS 102 or placement into MUS 163 determined by Music Theory placement component of Music Diagnostic Exam.

MUS 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: MUS 163.

MUS 190/390. Topics in Music.

Cr. 1-3. 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 for MUS 390.

MUS 201. Development of Western Music.

Cr. 2. An overview of the stylistic trends in Western art music from the Middle Ages to the contemporary era. Prerequisite: MUS 163.

MUS 209. Musicianship III.

2+1, Cr. 2. An intermediate course in ear-training, sight-singing, and guided listening. Prerequisite:

MUS 110.

MUS 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.

MUS 220. English Diction for Singers.

Cr. 1. Using the International Phonetic Alphabet as a guide, students acquire the skills to read, hear, transcribe and sing English lyric texts with proper clarity, inflection and understanding.

MUS 221. Italian Diction for Singers.

Cr. 1. Using the International Phonetic Alphabet as a guide, students acquire the skills to read, hear, transcribe and sing Italian lyric texts with proper clarity, inflection and understanding.

MUS 222. German Diction for Singers.

Cr. 1. Using the International Phonetic Alphabet as a guide, students acquire the skills to read, hear, transcribe and sing German lyric texts with proper clarity, inflection and understanding. Prerequisite: MUS 220 or MUS 221.

MUS 223. French Diction for Singers.

Cr. 1. Using the International Phonetic Alphabet as a guide, students acquire the skills to read, hear, transcribe and sing French lyric texts with proper clarity, inflection and understanding. Prerequisite: MUS 220 or MUS 221.

MUS 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.

MUS 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.

MUS 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.

MUS 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.

MUS 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.

- MUS 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.
- MUS 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.
- MUS 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, and rondo). Prerequisite: MUS 263.
- MUS 285. Introduction to the Music Industry.**
Cr. 2. An overview of the history, trends and scope of the music industry as it relates to career opportunities, including field trips and introduction to retailing, publishing, manufacturing, performing and recording, and managing musical enterprises. Prerequisite: sophomore standing or above.
- MUS 307. Music Methods for the Elementary Teacher.**
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.
- MUS 309. Musicianship IV.**
2+1, Cr. 2. An advanced course in ear-training, sight-singing and guided listening. Prerequisite: MUS 209.
- MUS 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.
- MUS 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.
- MUS 318. Music of the Baroque, Classical and Early Romantic Eras.**
Cr. 3. The development of musical thought and literature from 1700 to 1880. Prerequisite: MUS 201. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.
- MUS 319. Music of the Late Romantic and Modern Eras.**
Cr. 3. A study of music and musical thought from 1880 to the present. Prerequisite: MUS 201. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.
- MUS 381. Cooperative Education in Music.**
Cr. 0.5-3. Professional work experience with a cooperating employer. Written report required. Prerequisite: chair's approval of written proposal submitted to the department office at least 6 weeks prior to start of the semester.
- MUS 385. Legal Aspects of the Music Industry.**
Cr. 2. A study of the unique relationship between publishing and copyright. Selected topics in copyright management, music licensing and public contracts are explored through application of case studies and current legislation. Prerequisite: MUS 285.
- MUS 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.
- MUS 401. Early Music Seminar.**
Cr. 2. A history of Western music from antiquity to the early Baroque era: emphasis is placed on historical research and the study of notation and performance practice. Prerequisite: MUS 318.
- MUS 404. Recital.**
Cr. 1-2. Preparation and performance of a program of music as specified in the Handbook for Music Students.
- MUS 413. Advanced Conducting, Choral/Instrumental.**
Cr. 2. A study of instrumental and choral scores, conducting techniques and materials. Prerequisite: MUS 313 or the equivalent.
- MUS 415. 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, completion of level 203 in a keyboard studio area, and MUS 164, or permission of the instructor. Offered in alternate years.

Music

MUS 423. 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.

MUS 432. Workshop in Music Education.

Cr. 1-2. A study of current topics in music education in summer workshop sessions of one or two weeks.

MUS 454. Teaching of Performance Music.

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 MUS 453.

MUS 463. Twentieth Century Techniques.

Cr. 3. A study of selected 20th century musical works demonstrating stylistic characteristics of impressionism, neoclassicism, non-serial atonality, serialism, minimalism, indeterminacy, and neo-romanticism. Particular attention is paid to compositional technique and style. Prerequisite: MUS 263.

MUS 464. Studies in Counterpoint.

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: MUS 264.

MUS 473. Church Music.

Cr. 3 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. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

MUS 485. Current Issues in the Music Industry.

Cr. 2. A study of current issues and trends in the music industry. This capstone course includes in-depth research into each student's area of career focus and culminates in a presentation or project. Prerequisite: MUS 385 or permission of the instructor.

MUS 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: MUS 385.

MUS 489. School Music II.

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 Teacher Education.

MUS 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 advisor. The study results in a written essay on a topic approved by the advisor. Prerequisites: MUS 264 or 381 and approval of the Chair of the Department.

MUS 497. Honors Work in Music.

Cr. 3. See Honors Work, page 54.

MUS 498. Honors Candidacy in Music.

Cr. 3. See Honors Work, page 54.

MUS 499. Music Colloquium.

Cr. 0. All music majors will register for this course each semester in residence as outlined in the *Handbook for Music Students*. S/U grade.

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 and/or ensemble which may be applied toward degree requirements.

A. Studio Instruction. See page 269 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. A limited number of studio spaces are available for non-majors. All non-major studio enrollments are 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.

Students with no prior or minimal study should register for MUS 003.

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 and the studio faculty.

Studio instruction is available in:

Voice	Flute
Piano and Jazz Piano	Oboe
Harp	Clarinet
Harpsichord (by audition only)	Bassoon
Organ (by audition only)	Saxophone
Organ Improvisation (by audition only)	French Horn
Violin	Trumpet
Viola	Trombone
Violoncello	Euphonium
Contrabass	Tuba
Classical Guitar	Percussion

Composition. Private instruction in musical forms, techniques, and materials leading the development of new works. Approval of the chair required.

B. Ensemble Music Instruction.

Instruction in one of the major ensembles for a period of one semester gives one credit hour. Instruction in one of the minor ensembles gives 0.5 credit hour. The following are considered major ensembles: University Singers, Valparaiso

University Chorale, Kantorei, Concert Band, Jazz Ensemble, 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.

MUS 050,550. Choirs.

University Singers, Valparaiso University Chorale, Kantorei, admission by audition only.

MUS 052,552. Bands.

Concert Band, Luce Band, Jazz Ensemble, admission by audition only. Also Community-University Band, audition not required.

MUS 054,554. Orchestra.

University Symphony Orchestra. Admission by audition only.

MUS 056,556. Music/Theatre Workshop.

Admission by audition only.

MUS 057, 557. Small Ensemble Music.

Small specialized ensembles to study and perform an array of repertoires, including Trumpet Choir, Trombone Choir, Guitar Ensemble, and Jazz Combo. Open to students at a variety of skill levels. Some sections required audition or prior consultation with the instructor.

MUS 058,558. Chamber Music.

Specialized ensembles, one to a part, for study and performance of standard chamber music repertoire (typically instrumental duos, trios, quartets, etc.) Admission and placement in sections by department screening only.

Philosophy

Associate Professors Geiman, Visser; Instructor Jorgensen.

Courses in philosophy offer students the opportunity to examine the basic issues which arise in all fields of endeavor and also to explore the positions of the great thinkers of both Western and non-Western civilizations. These courses encourage students to reflect philosophically on those concepts which significantly shape human life because of the key role they play in language, thought, belief, and action. Reflection is philosophical if it is analytical, critical, and evaluative. The study of philosophy tends to develop and sharpen analytical and critical thinking generally, not only about philosophical topics, but also about other disciplines as well. Philosophy courses can also help educated Christians think critically about various issues raised by involvement in their religious communities.

A major in philosophy may lead to careers such as law, the ministry, and teaching, and enhances careers in medicine, business, education, writing, and public service.

Major. A minimum of 30 credit hours in philosophy constitutes a major. Courses must include PHIL 150, 275, 280 and one additional 200-level course, 375 and two additional 300-level courses, 425 and 450. The Department recommends specific plans of study for those preparing for entrance into law school, seminary, or graduate study in philosophy. Majors who are preparing for graduate study in philosophy are advised to complete a minimum of 36 credit hours of philosophy.

Minor. A minimum of 18 credit hours in philosophy constitutes a minor. Courses must include PHIL 150, 275, 280, and one 300-level or 400-level philosophy course.

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

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

Prerequisites. Courses numbered 100 are considered introductory courses. Courses numbered 200 are considered advanced introductory courses and require sophomore standing or consent of the instructor. Courses numbered 300 and above are considered advanced courses and have, as prerequisite, any one course numbered under 300, or sophomore standing in Christ College, or consent of the instructor. Courses numbered 400 and above are designed for majors and minors.

General Education. Any course in philosophy except PHIL 150 will satisfy the Humanities: Philosophy General Education Requirement, but students will usually be best served by choosing PHIL 115, 120, or 125. PHIL 150 will satisfy the Quantitative Analysis General Education Requirement. From time to time certain philosophy courses are cross-listed with upper level Theology courses and thus may satisfy that requirement under the Theology number. PHIL 120 and 220 may be used to fulfill the Cultural Diversity course requirement. PHIL 210 will satisfy the Humanities: Fine and Performing Arts component of the General Education Requirements.

PHIL 115. Introduction to Philosophy: Reason and Reality.

Cr. 3. An introduction to philosophy which features some of the most fundamental questions raised by both ordinary persons and philosophers in their attempts to understand themselves and their world. Questions are raised about the nature of reality, the foundations of knowledge and value, the nature of persons, freedom and causality, and the relationship between faith and reason.

PHIL 120. Introduction to Philosophy: Democracy, Education and Multiculturalism.

Cr. 3. An introduction to some philosophical problems relating to ethnicity and multiculturalism particularly as these arise in political philosophy and philosophy of education in the American context. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

- PHIL 125. Introduction to Philosophy: The Good Life.**
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.
- PHIL 150. Logic and Critical Thinking.**
Cr. 3. An introduction to 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. May be used to fulfill the Quantitative Analysis component of the General Education Requirements. May not be used to fulfill the Humanities Component of the General Education Requirements. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement exam.
- PHIL 205. 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. Prerequisite: sophomore standing or consent of the instructor.
- PHIL 210. 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. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements. Prerequisite: sophomore standing or consent of the instructor.
- PHIL 220. 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. May be used to fulfill the Cultural Diversity course component of the General Education Requirements. Prerequisite: sophomore standing or consent of the instructor.
- PHIL 230. 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. Prerequisite: sophomore standing or consent of the instructor.
- PHIL 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 or consent of the instructor.
- PHIL 275. 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. Prerequisite: any 100-level philosophy course or consent of the instructor.
- PHIL 280. 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. Prerequisite: any 100-level philosophy course or consent of the instructor.
- PHIL 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. Prerequisite: sophomore standing or consent of the instructor.
- PHIL 310. 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. Prerequisite: any two courses in philosophy or consent of the instructor.
- PHIL 315. Philosophy of Language.**
Cr. 3. How do words mean? The nature of meaning and of language has been at the center of twentieth century philosophy. This course will examine these and other issues in the philosophy of language, concentrating on the discussions of recent philosophers. Prerequisite: PHIL 150 or MATH 151 or consent of the instructor.

Philosophy

PHIL 320. 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. Prerequisite: PHIL 150 or MATH 151 or consent of the instructor.

PHIL 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. Prerequisite: one course in philosophy or any Level II Theology course.

PHIL 335. 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. Prerequisite: any two courses in philosophy or consent of the instructor.

PHIL 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 both to ethical theory and to practical issues. Prerequisite: one course in philosophy or any Level II Theology course.

PHIL 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 MATH 151 or consent of the instructor.

PHIL 375. Advanced History of Philosophy.

Cr. 3. An advanced study of the major philosophical themes of some period, for example, nineteenth century German philosophy, eighteenth century Scottish philosophy, or medieval philosophy. Prerequisite: PHIL 275 and 280 or consent of the instructor.

PHIL 386. Internship in Philosophy.

Cr. 1-3. Students gain experience working for organizations or agencies in which writing proficiency and critical thinking skills are essential. A written report is required. May not be used for the major or minor. S/U grade only. Prerequisite: approval of the chair of the department.

PHIL 425. Advanced Philosophical Topics.

Cr. 3. An examination of the work on one major philosopher such as Aristotle, Wittgenstein, or Kant, or of a single philosophical approach such as Augustinianism or phenomenology, or of one philosophical problem such as free will or moral realism. Prerequisite: PHIL 275 and 280 or consent of the instructor.

PHIL 450. Philosophy Seminar.

Cr. 3. A seminar required of all philosophy majors in their senior year. An examination of the nature and value of philosophy through the study of some philosophical problem, and classic and contemporary texts. Prerequisite: PHIL 275 and 280 or consent of the instructor.

PHIL 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.

PHIL 497. Honors Work in Philosophy.

Cr. 3. See Honors Work, page 54.

PHIL 498. Honors Candidacy in Philosophy.

Cr. 3. See Honors Work, page 54.

Physical Education

Associate Professors Stieger (Chair), Tyree; Assistant Professor Morrison; Instructor Brunson; Adjunct Assistant Professor Moore; Adjunct Instructors Daugherty, Hayes, 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 lifelong 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, exercise science, sports writing and broadcasting, and sports management. Students can select courses from the departmental curriculum to reflect these new areas.

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 Sports Management major and Exercise Science major are noted on a student's transcript as Physical Education: Sports Management or Physical Education: Exercise Science.

Physical Education 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.

Physical Education Minor. A minimum of 18 credit hours in physical education constitutes a minor. Courses must include PE 150, 190, 230, and 370.

Physical Education Teacher Education. Students who plan to teach in the elementary or secondary schools with a major or minor in Physical Education must also complete a complementary major in secondary education.

The Physical Education Teacher Education Major: All Levels (Early/Middle Childhood, Middle Level, Adolescence/Young Adult). This teaching major requires a minimum of 53

credit hours. Courses must include PE 101 or 105, 150, 170, 180, 190, 210, 211, 230, 235, 240, 250, 260, 270, 350, 360, 370, 389, 410, 440, and 489. Students must also pass all portions of the Pre-Professional Skills Test (PPST) and gain formal admission into the Teacher Education program in the Education Department. The complementary major in Secondary Education for Physical Education Teacher Education must include ED 203, 204, 305, 370, 460, SPED 440, ED 485, and 459.

Physical Education Teaching Middle School/Secondary Major (Middle Level, Adolescence/Young Adult). This teaching major requires a minimum of 36 credit hours. Courses must include PE 150, 170, 180, 190, 235, 240, 250, 260, 350, 370, 389, 410, and 440. Additionally, students must pass all portions of the Pre-Professional Skills Test (PPST) and gain formal admission into the Teacher Education program in the Education Department.

Physical Education Teaching Middle School/Secondary Minor (Middle Level, Adolescence/Young Adult). This teaching minor requires a minimum of 22 credit hours. Courses must include PE 150, 170, 180, 190, 235, 240, 260, 350, 389, and 370 or 440. In addition, students must complete BIO 151 and 152.

Health Education Content Area. This teaching minor requires a minimum of 21 credit hours. Courses must include PE 190, 230, 235, BIO 151, 152, 205 and SOC 160.

Coaching Certificate. This certificate requires a minimum of 17 credit hours. Courses must include PE 180, 190, 220, 235, 310, 370, and 440.

Sports Management Major. 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, students must complete COMM 100 and 265, and the 21-credit Liberal Arts Business Minor.

Exercise Science Major. A minimum of 24 credit hours in physical education is required. Courses must include PE 150, 220, 370, 387, 410, 440, 473 (3 credits) 477. In

Physical Education

addition, students must complete PHYS 111, PSY 201, either BIO 205 or BIO 260, and a minor in either chemistry or human biology.

Exercise Science Minor. The exercise science minor requires a minimum of 15 credit hours in physical education. Courses must include PE 150, 220, 370, 387, 440, 477. In addition, students must also complete BIO 205 or BIO 260.

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 advisor before each registration period.

Basic Courses in Physical Education. All students must take one credit hour of Fitness Principles and Activities courses PE 100-105. 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 100-149 may be counted toward any degree.

PE 100. Healthy Lifestyles.

Cr. 1. This course is designed for freshmen (and transfer students) and should be taken during their first year of attendance at Valparaiso University. The course is aimed at promoting a concern in each student for their current level of health and physical fitness. The correlation between healthful practices and future physical, mental and emotional well-being is emphasized.

PE 101. Individual Exercise.

0+2, Cr. 1. Principles and physiology of physical fitness with topics such as resistive exercise training, nutrition and aerobic conditioning. A personalized exercise program is developed.

PE 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.

PE 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.

PE 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.

PE 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.

PE 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. S/U graded only.

PE 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, exercise science or sports management as fields of study.

PE 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 Lifeguarding Certificate (2 Cr.: Mini or Summer Session only). Prerequisite: approval of the instructor.

PE 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.

PE 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.

PE 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 Responding to Emergencies and Community CPR.

PE 210. Team Sports.

Cr. 1. Seven weeks course. Skills, knowledge, attitudes and appreciation of team sports such as football, soccer, baseball, softball, and basketball.

PE 211. Individual Sports.

Cr. 1. Seven weeks course. Skills, knowledge, attitudes and appreciation of individual and dual sports such as golf, badminton, racquetball, and tennis.

- PE 220. Coaching Theory.**
Cr. 1-2. Seven week course. The 1-credit sections involve a study of the methods and principles of coaching interscholastic and intercollegiate sports. The 2-credit section also includes a study of the methods associated with the planning, periodization, peaking, and bio-motor development in coaching. Students will develop a comprehensive seasonal plan for a specific sport. The 1-credit sections may not be repeated with the same sport.
- PE 230. Seminar in Health.**
Cr. 3. A study of the human body in health and disease. Included are discussions of major American health concerns, their incidence and prevention.
- PE 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.
- PE 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.
- PE 240. Philosophical, Historical and Organizational Perspectives in Physical Education.**
Cr. 3. A study of the philosophical, historical, organizational and administrative aspects of physical education.
- PE 250. Dance Patterns and Forms.**
2+2, Cr. 3. A study of dance with emphasis on modern, folk, social and square dance forms as well as teaching techniques.
- PE 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.
- PE 270. The Learning Potentialities 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 elementary educational activities. Field trips are required as part of the laboratory experience.
- PE 289. Physical Education and Health Methods for Classroom Teachers.**
Cr. 2. This course offers content, methods, and materials in health and physical education for elementary classroom teachers. Health and physical education lesson planning, peer teaching, cross-curricular lessons, rhythms and multi-cultural games will be included in course work. Prerequisite: sophomore standing.
- PE 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).
- PE 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.
- PE 320. Sport and Society.**
Cr. 3. A study of the role of sports in society and the effects of culture and society on sports.
- PE 333. 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.
- PE 340. Movement and Learning.**
2+2, Cr. 3. Introduction to human motor development emphasizing major theoretical viewpoints; factors affecting motor development including physiological change, perceptual change, cognitive change, sociocultural practices, and intervention. The course will have applications to kinesiology, motor learning, adapted physical education, and both elementary and secondary education.
- PE 343. Sports Marketing, Promotions and Fund Raising.**
Cr. 3. A study of the roles of marketing, promotions, and fund raising in the sports enterprise. Students are involved in planning and organizing programs in these areas. Students also receive experience in implementing a group project on campus or in a community setting.
- PE 350. Methods of Middle School Physical Education.**
1+2, Cr. 2. A study of methods designed to address the specific needs of middle school physical education students. Course topics include specific needs of middle school learners, including teaching behaviors, instructional styles and strategies, and new technologies.
- PE 360. Adapted Physical Education.**
Cr. 3. A study of the needs and problems of the exceptional individual with emphasis on adapting appropriate activities to meet these needs.

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- PE 370. Kinesiology.
2+2, Cr. 3. A study and application of the kinesiological and biomechanical principles of movement. Prerequisite: BIO 151.
- PE 387. Fitness Assessment and Exercise Prescription.
Cr. 3. Introduction to physiological testing protocols, fitness evaluations and the design of exercise prescriptions based on direct and indirect measures, e.g., oxygen uptake, heart rate, caloric expenditure. Areas of study include but are not limited to cardiac rehabilitation, COPD, diabetes, pregnancy, youth and the elderly. Prerequisite: BIO 151, 152 or approval of the instructor.
- PE 389. Teaching Physical Education in the Elementary School.
Cr. 3. Focuses on planning, teaching, and evaluating a developmental physical education program for elementary school students. Includes lab experience designed to enhance planning, management and teaching skills.
- PE 410. Measurement and Evaluation in Physical Education.
Cr. 3. An analysis of evaluation techniques for activities and an investigation of the measure of central tendency, statistical designs, computer use and empirical research for physical education.
- PE 440. 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: BIO 152.
- PE 473. Physical Education Senior Project.
Cr. 3. A personal investigation of a specific area in the field of Physical Education, Sports Management, or Exercise Science. 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.
- PE 477. Advanced Physiology of Exercise.
Cr. 3. Critical review of the most current exercise science literature. Topics include biochemistry of exercise, carbohydrate metabolism, ergogenic aids, muscle physiology, endocrine physiology and cardiac rehabilitation. Prerequisites: PE 370, 387, 440, CHEM 122, or approval of the instructor.
- PE 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 instructor and the program supervisor. This course may be repeated for a maximum of six credit hours. Prerequisites: junior standing, approval of the instructor and consent of the Chair of the Department.
- PE 489. The Teaching of Physical Education.
Cr. 3. (See ED 489.) 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 Teacher Education.
- PE 490. Special Topics in Physical Education.
Cr. 1-3. An open-topic course which examines a variety of topics pertaining to the needs of the physical educator, e.g., motor learning, curriculum construction, advanced athletic conditioning, current issues in physical education.
- PE 495. Independent Group Study.
Cr. 1-3. A personal investigation of a research-oriented concern pertaining 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.
- PE 497. Honors Work in Physical Education.
Cr. 3. See Honors Work, page 54.
- PE 498. Honors Candidacy in Physical Education.
Cr. 3. See Honors Work, page 54.

Physics and Astronomy

Professors Hrivnak, Manweiler;
Associate Professors Morris,
Stanislaus, Zygmunt (Acting Chair);
Assistant Professors Hillwig, Richter;
Visiting Instructor Doering.

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, atmosphere physics, geophysics, biophysics, medical physics, computational physics, electrical engineering, nuclear engineering, scientific writing and reporting, high school physics teaching, patent law, and scientific equipment sales.

The Department is well equipped, having a particle accelerator, an astronomical observatory, a surface physics laboratory, 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 elected to membership in the national honor society, Sigma Pi Sigma. More information about the department can be found on the internet at <<http://www.physics.valpo.edu/>>.

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 28 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 56.

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, 246, 250, 281, 345, 371, 445 and 499.

Four concentrations within the physics major have been designed to meet students' educational and career goals. The departmental advisor will assist students in selecting the most appropriate physics major emphasis and the courses which apply within the emphasis.

One year of chemistry is recommended. It is assumed that students majoring in physics will acquire competency in at least one computer programming language (FORTRAN, C, C++). 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. MATH 430 and 434 are also recommended.

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 101, 190, 221, 252, 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 Physics 489. See the description of the Secondary Education program on page 88 for further details. In addition to the core courses, ASTR 101, 101L, and 221 are recommended.

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 56) 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 137).

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 239).

Physics Minor. A minimum of 16 credit hours in physics and astronomy constitutes a minor. PHYS 142L, 243 and one of ASTR 221, PHYS 245, or PHYS 246 must be included.

Mechanics and Materials 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 252 and 462.

Electronics Minor. A minimum of 16 credit hours which must include PHYS 342, 372, and 440. Other courses should be selected from PHYS 322, ECE 221, 222, 261, and 262.

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, 111L, 112, 112L, 141, 141L, 142, or 142L 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 advisor.

ASTRONOMY

ASTR 101. Astronomy.

3+0, Cr. 3. A study of the history of mankind'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.

ASTR 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.

ASTR 190. Topics in Astronomy and Space Science.

Cr. 1-2. The study of various topics of current interest in astronomy and space science, on an introductory level. Prerequisites are dependent on the topic. Interested students are urged to consult the instructor or the Department Chair for specific information.

ASTR 221. Observational Astronomy.

0+3, Cr. 1. Practical observational experience using the 16 inch reflecting telescope and astronomical instrumentation including photographic cameras, spectograph and CCD camera and computer. Normally offered in the spring semester of odd numbered years. Prerequisite: ASTR 101 and 101L or 252 or consent of the instructor.

ASTR 252. Introduction to Astrophysics.
3+0, Cr. 3. A study of modern astronomy and the physical principles involved. Topics to be studied include the properties and evolution of stars and galaxies. 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. Normally offered in the spring semester of even numbered years. Prerequisite or concurrent registration: MATH 131 or 151 and PHYS 243. Students who have taken ASTR 101 need permission from the Department Chair to also take ASTR 252.

ASTR 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.

ASTR 445. Senior Research in Astronomy.
0+3, Cr. 1-2. This course is identical to PHYS 445 but with a specific focus on problems in astronomy. See PHYS 445 for details. Prerequisites: ASTR 221 and 252.

ASTR 492. Research or Reading in Astronomy.
Cr. 0.5-3. Research or reading in astronomy, under the supervision of a faculty member. Prerequisite: consent of the Chair of the Department.

PHYSICS

PHYS 109. Mechanics--Statics.
Cr. 3. (Also offered as GE 109.) A course in the resolution and composition of forces and moments as 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 or 151, and PHYS 141 or 151.

PHYS 111. Essentials of Physics.
3+0, Cr. 3. The development of basic concepts of physics emphasizes intuition, logic and experiment rather than complex mathematical analysis. Specific topics included are space, time, motion, energy, conservation laws, fluids, sound and heat. Not open to students who have taken PHYS 141. This course along with PHYS 111L may be used in fulfillment of the Natural Science component of the General Education Requirements. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

PHYS 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. Emphases are 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.

PHYS 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. 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.

PHYS 112L. 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 112. Emphases are placed on experiential learning and on the continued development of laboratory skills in physical science. Prerequisite: PHYS 111L. Prerequisite or concurrent registration: PHYS 112. Not open to students who have taken PHYS 142L.

PHYS 141. Physics: Mechanics and Heat.
3+0, Cr. 3. A study of classical mechanics, including static and dynamic systems, and of thermal physics for students of physics, engineering, chemistry and meteorology. Applications of calculus are made as appropriate. 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.

PHYS 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 placed on the development of laboratory skills in physics. Prerequisite or concurrent registration: PHYS 141. Not open to students who have taken PHYS 111L.

PHYS 142. Physics: Electricity, Magnetism and Waves.
3+0, Cr. 3. A continuation of PHYS 141 which treats electricity, magnetism, wave motion and optics. Prerequisite: PHYS 141 and 141L or advanced placement by permission of the Chair of the Department, MATH 132 or 152 or concurrent registration. This course along with PHYS 142L may be used in fulfillment of the Natural Science component of the General Education Requirements.

PHYS 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: PHYS 141L. Prerequisite or concurrent registration: PHYS 142. Not open to students who have taken PHYS 112L.

PHYS 151. Physics: Mechanics and Heat - Honors.

3+0, Cr. 3. A study of classical mechanics, including static and dynamic systems, and of thermal physics for students of physics, engineering, chemistry, and meteorology. The pace of this course and the subject matter will be similar to that in PHYS 141. However, students are assumed to be proficient in differential and integral calculus at the outset, and applications of calculus are made throughout the course. This course along with PHYS 141L may be used in fulfillment of the Natural Science component of the General Education Requirements. Prerequisite: MATH 132 or 152 or concurrent registration, equivalent AP credit, or the permission of the instructor.

PHYS 152. Physics: Electricity, Magnetism and Waves - Honors.

3+0, Cr. 3. A continuation of PHYS 151 which treats electricity, magnetism, wave motion and optics. This course along with PHYS 142L may be used in fulfillment of the Natural Science component of the General Education Requirements. Prerequisite: PHYS 151 or consent of the instructor. Corequisite: MATH 132 or 152.

PHYS 190/390. 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.

PHYS 215. Mechanics of Materials.

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.

PHYS 243. Physics: Atoms and Nuclei.

Cr. 3. An introduction to the special theory of relativity, physics of the atom, the Schrodinger wave equation, physics of condensed matter, physics of the nucleus including radioactivity, and elementary particles. Prerequisites: PHYS 142 and MATH 132 or 152 (may be taken concurrently).

PHYS 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.

PHYS 246. 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 measured and fitted parameters. Extensive use of the computer is expected. Prerequisite: MATH 253.

PHYS 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 253 (may be taken concurrently).

PHYS 252. Materials Science.

2.5+1.5, 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.

PHYS 281. Electricity and Electronics.

2.5+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.

PHYS 322. Embedded Microcontrollers.

2.5+1.5, Cr. 3. (Also offered as ECE 322). The application of microcontrollers in embedded system design, emphasizing the interaction of hardware and software design. Use of assembly language programming to interface external hardware to a microcontroller. Prerequisite: ECE 221 with a minimum grade of C.

PHYS 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. Prerequisite: PHYS 142.

PHYS 342. Electronics.

3.5+1.5, Cr. 4. (Also offered as ECE 340.) An introduction to semiconductor theory and the design and analysis of electronic circuits. Topics include diodes, bipolar and field effect transistors, single-stage and multistage amplifiers, frequency response, and feedback. Computer simulation is included as an analysis and design tool. Laboratory experiments emphasize evaluation of circuit performance and measurement techniques. Prerequisite: ECE 261 or permission of the instructor.

PHYS 345. Experimental Physics IV.

0+3, Cr. 1. Experiments in radiation detection and analysis using modern modular electronics. Prerequisites: PHYS 243, 245, and 246 and MATH 253.

PHYS 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.

PHYS 371. Electromagnetic Fields.

Cr. 3. A study of electric and magnetic fields, their sources and interactions in vacuum and in dielectric and magnetic media. Prerequisites: PHYS 250, MATH 253, and MATH 234 or 265.

PHYS 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.

PHYS 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, MATH 253, and MATH 234 or 265.

PHYS 421. Quantum Mechanics I.

Cr. 3. The fundamental concepts and principles of quantum physics are developed in a mathematically rigorous way and applied to atomic, nuclear and solid state physics. Topics include the fundamental postulates of quantum mechanics, the Schroedinger equation, and selected topics such as the harmonic oscillator, orbital and spin angular momentum, the hydrogen atom, identical particles, elementary matrix mechanics, multi-electron atoms, and collision theory. Normally offered in the fall semester of odd numbered years. Prerequisites: PHYS 243 and MATH 234 or 265 (both of which may be taken concurrently with permission of the instructor).

PHYS 422. Quantum Mechanics II.

Cr. 3. A continuation of PHYS 421, with further development and application of quantum theory. Topics may include time independent and time dependent perturbation theory with applications, scattering theory, matrix mechanics, multi-electron and molecular systems, elementary 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.

PHYS 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 fission physics. Prerequisite: PHYS 243. Normally offered in the spring semester of even numbered years.

PHYS 430L. Nuclear Physics Laboratory.

0+3, Cr. 1. An advanced laboratory to study nuclear reactions, nuclear structure, radioactivity. Experiments may use the 300 keV particle accelerator and a neutron howitzer. Prerequisites: PHYS 246 and 345; corequisite: PHYS 430. Normally offered in the spring semester of even numbered years.

PHYS 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 includes 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,

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magnetic and optical properties, and superconductivity. Normally offered in the spring semester of odd numbered years. Prerequisites: PHYS243.

PHYS 445. Senior Research in Physics.
0+3, Cr. 1-2. Each student undertakes a physics research problem. A written report and an oral presentation at the Physics Colloquium are required. Student research problems 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.

PHYS 481. Cooperative Education in Physics I.
Cr. 0.5-3. Experience in basic or applied physics with a cooperating employer. Midterm and final written reports required. Prerequisites: PHYS 245 and approval of the Chair of the Department. S/U grade.

PHYS 482-483. Cooperative Education in Physics II-III.
Cr. 0.5-3. Continuation of PHYS 481. Midterm 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 additional credit.

PHYS 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 Teacher Education.

PHYS 490. The Scientific Endeavor.
Cr. 3. An exploration of the scientific enterprise involving a study of foundational principles and assumptions of the scientific endeavor, its various methodologies, and its scope and limitations. This will include illustrations from historical case studies and "scientific revolutions". Students will also study the ethical and moral connections between their personal and professional science lives. Prerequisite: junior or senior standing. This course may not be used to fulfill the minimum requirements of a physics major. This course may be used to fulfill the Humanities: Philosophy requirement of the General Education Requirements.

PHYS 492. Research or Reading in Physics.
Cr. 0.5-3. Research or reading in physics, under the supervision of a faculty member. Prerequisite: consent of the Chair of the Department.

PHYS 497. Honors Work in Physics.
Cr. 3. See Honors Work, page 54.

PHYS 498. Honors Candidacy in Physics.
Cr. 3. See Honors Work, page 54.

PHYS 499. Physics Colloquium.
Cr. 0. All physics majors are expected to register for this course. S/U grade.

Political Science

Professors Baas (Chair), Trost; Associate Professors Kingsland, Lin; Assistant Professors Blackmon, Hora; Adjunct Assistant Professors Old, Shearer.

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 series of informal events 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 on 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.

Community Outreach Partnership Center. The department administers a Department of Housing and Urban Development grant that seeks to develop university-community partnerships to assist in the revitalization of local neighborhoods. Students are involved in this project as interns, paid assistants and volunteers, and assist in doing research and providing service.

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 and comparative politics, 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. The following are required of all majors: POLS 120, 130, 240, and 493. In addition, one of the following concentrations must be followed.

General Political Science. In addition to the 12 credit hours required of all majors, students take an additional 18 credit hours from any of the courses offered in the department.

International Relations and Comparative Politics Concentration. In addition to the 12 credit hours required of all majors, students are required to take POLS 230 and at least 12 of the remaining 15 credit hours needed for the major from the following: POLS 330, 335, and 380 and 490 when the topics are appropriate.

Legal Studies Concentration. In addition to the 12 credit hours required of all majors, students take at least 15 of the remaining 18 credit hours needed for the major from the following: POLS 140, 220, 340, 341, 345, and 380 and 490 when the topics are appropriate.

Public Policy and Public Administration Concentration. In addition to the 12 credit hours required of all majors, students are required to take POLS 360, 361, and at least 9 of the remaining 12 credit hours needed for the major from the following: POLS 220, 260, 270, 320, 326, 327, 345, 386, and 490 when the topic is 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 and 130 and at least 12 additional credit hours.

International Relations Concentration. The following courses are required for this concentration: POLS 130, 230, and 12 additional hours from the following courses: POLS 330, 335, 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 for this concentration: POLS 120, 360, 361, and 9 additional credit hours from the following: POLS 220, 260, 270, 326, 327, and 345.

A Political Communication Minor is offered jointly with the Department of Communication. See page 241.

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

Credit by Examination. Credit for POLS 120 may be earned through the College Level Examination Program subject examination in American Government.

Approval of Schedules. Students taking a major or minor in political science must have their schedules approved by the appropriate advisor.

POLS 110. Introduction to Politics.
Cr. 3. An introduction to the theories, concepts and issues of politics with particular emphasis on how these apply to problems of ethnicity and diversity in the American political system. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

POLS 120. The Government of the United States.
Cr. 3. An introduction to the American national government, with special emphasis on the basic structure, functions and policies of the system.

POLS 130. Comparative Politics.
Cr. 3. Comparative study of Western and non-Western political systems. Includes examination of conceptual frameworks for comparative analysis. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

POLS 140. The Field of Law.
Cr. 1. A course designed to help students prepare for the professional study of law. Open to all students.

POLS 220. State and Local Politics in the United States.
Cr. 3. Comparative analysis of state and local political systems in the United States. Emphasis is placed on the contemporary role of states and localities in the development and implementation of public policies.

Note: The following courses are not open to freshmen without permission of the Chair.

POLS 230. International Relations.
Cr. 3. The fundamentals of international politics and international organization, particularly the United Nations and its specialized agencies.

POLS 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.

POLS 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.

POLS 260. Research Methods in Political Science.
Cr. 3. An examination of the basic research methods, statistics and data analysis techniques used by social scientists. An emphasis is on the application of these methods in an applied setting and students are often involved in a community research project. May be used to fulfill the Quantitative Analysis component of the General Education Requirements.

POLS 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.
- POLS 320/520. Politics of Urban and Metropolitan Areas.**
Cr. 3. This course will examine the politics and policy making of urban and metropolitan governments, and will include special emphasis on issues such as the nature of local decision making, racial and ethnic politics, education, housing, law enforcement, economic development, and the prospects for regional government.
- POLS 325/525. 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.
- POLS 326/526. 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.
- POLS 327/527. 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.)
- POLS 330/530. Politics of Industrialized States.**
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.
- POLS 335/535. Politics of Developing States.**
Cr. 3. A study of the governments and political problems of selected newly independent, underdeveloped states. Areas given in a semester vary across Africa, Latin America, the Middle East and the Far East. Prerequisite: POLS 130 or consent of the Chair of the Department. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.
- POLS 340/540. 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, Presidential and Congressional power and related topics. Prerequisite: POLS 120 or consent of the instructor.
- POLS 341/541. 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.
- POLS 345. The Judicial Process.**
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.
- POLS 355/555. Problems in Political Philosophy.**
Cr. 3. The study of one or more specific problems or philosophers in modern political philosophy. Prerequisites: POLS 240 or POLS 250 or consent of the instructor.
- POLS 360/560. Public Administration.**
Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: POLS 120 and junior standing.
- POLS 361/561. 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. Prerequisite: POLS 120.
- POLS 380/580. Problems in International Relations.**
Cr. 3. An intensive study of topics in international relations. Generally the course covers American foreign policy, international law, or international institutions. Prerequisite: POLS 230 or consent of the Chair of the Department.
- POLS 381. Cooperative Education in Political Science I.**
Cr. 0.5-3. Professional work experience which clearly augments the student's classroom education. Written report required. Prerequisites: POLS 120 and approval of the Chair of the Department.
- POLS 382-383. Cooperative Education in Political Science II-III.**
Cr. 0.5-3. Continuation of POLS 381. Prerequisites: POLS 381 and approval of the Chair of the Department. S/U grade. May be repeated beyond 383 for additional credit.
- POLS 386. Internship in Political Science.**
Cr. 1-4. Opportunities for students to have direct, supervised experience in governmental agencies, political parties and other political organizations at the national, state, and local levels. Some internships are in conjunction with off-campus programs such as the Washington or United Nations semesters. Prerequisite: consent of the Chair of the Department.

Political Science

POLS 489. The Teaching of Social Studies.
Cr. 3. (See ED 489.) A study in the methods of teaching social studies in secondary schools. Prerequisite: admission to the Professional Semester. This course may not be counted toward a major or minor in Political Science.

POLS 490. Seminar in Political Science.
Cr. 2-3. These are full or half semester courses covering a variety of subject areas, with subtitles and content dependent on instructor choice and student interest. They are of two types, labelled accordingly: (a) reading and discussion seminars or (b) seminars with major papers.

POLS 493. Senior Seminar in Political Science.
Cr. 3. This seminar is designed to be the place where students bring their knowledge and skills as political science majors to bear on current political topics in preparation for future service to society and active participation as citizens in a democracy.

POLS 495. Independent Study in Political Science.
Cr. 1-4. Individual research on a specific problem in one of the fields of government under the supervision of a member of the departmental staff. A written report is required. Prerequisites: major with junior or senior standing and consent of the Chair of the Department.

POLS 497. Honors Work in Political Science.
Cr. 3. See Honors Work, page 54.

POLS 498. Honors Candidacy in Political Science.
Cr. 3. See Honors Work, page 54.

Pre-Seminary Studies

This program of study is administered by the Department of Theology through its Center for Church Vocations.

Pre-Seminary Studies is an interdisciplinary program that may be taken only as a complementary academic major, typically along with a first academic major in one of the humanistic disciplines.

Objectives. The complementary major in Pre-Seminary Studies is intended to assure that a student preparing for graduate studies at a seminary or divinity school will meet the standards of the ideal pre-seminary curriculum recommended by the Association of Theological Schools as well as the entrance requirements of most seminaries (in particular the seminaries of the Lutheran church bodies in North America). Accordingly, Valparaiso's program stresses both depth in at least one area of the humanities as well as breadth in the various humanistic disciplines. In addition, it provides a solid preparation in the biblical languages of Hebrew and Koine Greek. The equivalent of a minor in Theology is an integral part of the program, and that minor may be declared by students who do not choose a first major in Theology. A Church Vocations Symposium (THEO 399) is the curricular anchor for this program, where pre-seminary students are joined by students preparing for other church vocations in considering topics of mutual interest.

Major. A total of 57 credits constitute this complementary major. A substantial number of these credits will meet a variety of requirements in General Education, and other credits will often meet requirements in the student's first major. Students should consult with the chair of the Department of Theology, who will assign an academic advisor.

Program Requirements. The General Education for the Bachelor of Arts degree is required (see page 44). Careful selection of courses from the list below will meet the General Education Requirements in Theology (9 credits), Foreign Languages (8 credits), History or Philosophy (3 credits), and Global Diversity (3 credits).

A first major in one of the humanistic disciplines or human sciences (e.g., history, philosophy, theology, art, music, classics, psychology, sociology, geography, political science, economics) is also required.

Depending on the student's interests, virtually any major may be chosen; consultation with the chair of the Department of Theology or the Program Director of the Center for Church Vocations is advised.

In addition, the following coursework is required:

Symposium	0 Cr.
THEO 399 Church Vocations Symposium (each semester the student is enrolled at Valparaiso University)	
English Composition	3 Cr.
One of the following:	
ENGL 300 Introduction to Professional Writing	
ENGL 301 Introduction to Creative Writing	
ENGL 321 Intermediate Composition	
ENGL 431 Advanced Composition	
Literature	3 Cr.
One of the following:	
ENGL 365 Studies in American Literature	
ENGL 390 Topics in Literature	
ENGL 401 American Literature I	
ENGL 402 American Literature II	
ENGL 405 Masterpieces of World Literature	
Western or U.S. History	3 Cr.
One of the following:	
HIST 200 Developments in Western Culture through the Ages	
HIST 325 The Age of Anxiety: United States since 1945	
Non-Western History	3 Cr.
One of the following:	
HIST 240 Introduction to East Asian Culture	
HIST 250 African History and Society	
HIST 341 Revolution and Its Roots: The Making of Modern China	
HIST 342 Tragedy and Triumph: The Making of Modern Japan	
HIST 350 Colonialism and Independence: Understanding Modern Africa	
Logic	3 Cr.
PHIL 150 Logic and Critical Thinking	

Philosophy	3 Cr.
One of the following:	
PHIL 275 Ancient and Medieval Philosophy	
PHIL 280 Early Modern Philosophy	
PHIL 330 Philosophy of Religion	
Greek	16 Cr.
FLGK 101 First Semester Greek	
FLGK 102 Second Semester Greek	
FLGK 203 Intermediate Greek	
FLGK 320 Koine Greek	
Hebrew	8 Cr.
FLH 101 First Semester Hebrew	
FLH 102 Second Semester Hebrew	
Theology/Bible	6 Cr.
THEO 311 Understanding the Old Testament	
THEO 312 Understanding the New Testament	
Theology/Doctrine	6 Cr.
THEO 332 Luther and Lutheran Confessional Theology	
Substitutions may be made for students planning to enter a seminary of another church body.	
One of the following:	
THEO 330 Topics in Contemporary Theology	
THEO 334 Constructive Christian Theology	

Theology/World Religions	3 Cr.
One of the following:	
THEO 360-369 An upper level course in non-Christian religions	
Recommended Additional Elective Courses	
MUS 473 Church Music	
MUS 213 Basic Conducting	
MUS 050 Kantorei	
MUS 003 Lessons in piano/organ/voice	

Courses which are specified as required in the Pre-Seminary Studies Major and which are from the discipline of the student's first major may be counted toward both major concentrations.

Psychology

Professors Arkkelin (Chair), Rowland; Associate Professors Nelson, Winquist; Assistant Professors Carlson, Hughes, Jackson, Simpson, Vernon.

Psychology is the scientific study of mental processes and behavior. The diversified interests of its faculty enable the Department to present a comprehensive view of the field. Courses in physiological, experimental, social, industrial, developmental and clinical-counseling psychology are offered. Opportunities for laboratory research in psychology and applications through field experiences are available.

A major in psychology may lead to careers in such fields as psychological counseling, recreational therapy, employment counseling, rehabilitation therapy, test consulting, demography, personnel, managing, marketing, behavior therapy, psychological research and teaching. In addition, psychology can be an excellent preparation for career in medicine and allied health professions when combined with appropriate courses in other sciences such as biology, chemistry, and physics.

Student Organizations. Psi Chi, the national honor society, was installed at Valparaiso University in 1990. Psychology majors and minors who have completed at least nine credit hours in psychology and at least three semesters of undergraduate study, and who have demonstrated superior scholastic achievement may be selected for membership.

Students interested in participating in social activities with the psychology students and faculty are invited to join the Psychology Club.

Major. A minimum of 27 credit hours in psychology constitutes a major for the Bachelor of Arts degree, provided that a second major or a minor is taken. A minimum of 40, but not more than 48, credit hours in psychology fulfills the requirements for a Bachelor of Arts degree without a second major or a minor. Courses must include PSY 110, 201, 202 and 493; one experimental psychology course (selected from PSY 240, 245, 250, 345, 350, 355), one

course in personality/ social psychology (selected from PSY 125, 265, 330, 332, 335); and one course in clinical/applied psychology (selected from PSY 235, 270, 445, 461, 465, 470, 475). One additional experimental course with a laboratory (245/246, 250/251, 345/346, 350/351, or 355/356) must be taken. It is recommended that students also take a minimum of one course as a capstone experience to their program. Courses suitable for this experience include PSY 360, 390, 485, 495, and 499.

A minimum of 32 credit hours in psychology fulfills the minimum requirement for a Bachelor of Science degree with a single science major plus one of the following: a non-science second major, a Liberal Arts Business minor, or a science minor (biology, chemistry, mathematics, or physics). Courses must include PSY 110, 201, 202, and 493; two experimental psychology courses with laboratory (selected from PSY 245/246, 250/251, 345/346, 350/351, and 355/356), one course in personality/ social psychology (selected from PSY 125, 265, 330, 332, and 335), and one course in clinical/applied psychology (selected from PSY 235, 270, 445, 461, 465, 470, 475). In addition to the 32 credits in psychology, students must complete BIO 151 or higher and MATH 122 or higher.

A minimum of 27 credit hours in psychology fulfills the minimum requirement for a Bachelor of Science degree, provided that a second major is taken in another science (biology, chemistry, mathematics, or physics). Courses must include PSY 110, 201, 202, and 493; two experimental psychology courses with laboratory (selected from PSY 245/246, 250/251, 345/346, 350/351, and 355/356), one course in personality/ social psychology (selected from PSY 125, 265, 330, 332, and 335), and one course in clinical/applied psychology (selected from PSY 235, 270, 445, 461, 465, 470, 475). In addition to the 27 credits in psychology, students must complete BIO 151 or higher and MATH 122 or higher.

A minimum of 40, but not more than 48, credit hours in psychology fulfills the requirements for a Bachelor of Science degree without a second major or a minor. Courses must include PSY 110, 201, 202;

two experimental psychology courses with laboratory (selected from PSY 245/246, 250/251, 345/346, 350/351, and 355/356), one course in personality/social psychology (selected from PSY 125, 265, 330, 332, and 335), and one course in clinical/applied psychology (selected from PSY 235, 270, 445, 461, 465, 470, 475). In addition to the 40 credits in psychology, students must complete BIO 151 or higher and MATH 122 or higher.

It is recommended that all students also take a minimum of one course as a capstone experience to their program. Courses suitable for this experience include PSY 360, 485, 495, 496, and 499.

Special Topics in Psychology (PSY 390) may be used to fulfill requirements for either degree with the consent of the Chair of the Department.

Minor. A minimum of five courses with a total of at least 15 credit hours in psychology constitutes a minor. Courses for the minor must include PSY 110 (with or without 111), 201, and one course, with or without laboratory, chosen from 240, 245, 250, 345, 350, 355, or 470.

Credit by Examination. Credit for PSY 110 may be earned through the College Level Examination Program subject examination in Introductory Psychology.

Approval of Schedules. All students taking a major or minor in psychology must have their schedules approved by the Chair of the Department or their assigned departmental advisor.

110. General Psychology.

Cr. 3. An introduction to the field of psychology with strong emphasis upon the scientific study of behavior. Topics include nervous system functioning, sensation and perception, learning, memory, cognition, development, motivation, emotion, social behavior, psychological dysfunction and treatment. When taken concurrently with laboratory (PSY 111), may be used to fulfill the Natural Science component of the General Education Requirements.

111. Laboratory in General Experimental Psychology.

0+2.5, Cr. 1. Laboratory to be taken concurrently with PSY 110. Students study psychological phenomena and methods directly through various laboratory experiments. When taken with PSY 110, fulfills Natural Science component of the General Education Requirements. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement exam and PSY 110 (may be taken concurrently).

PSY 125. Social Psychology.

Cr. 3. An interdisciplinary approach to the study of social influences on the psychological functioning and behavior of the individual. Prerequisite: PSY 110.

PSY 201. Statistical Methods.

Cr. 3. An introduction to the fundamentals of descriptive and inferential statistics for the behavioral sciences. May be used to fulfill the Quantitative Analysis component of the General Education Requirements. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement exam. Prerequisite: PSY 110.

PSY 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.

PSY 235. Abnormal Psychology.

Cr. 3. An analysis of psychopathology within the framework of theory and research. Prerequisite: PSY 110.

PSY 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. Prerequisite: PSY 110.

PSY 245. Physiological Psychology.

Cr. 3. A study of the structure and function of the nervous system in relation to motivation, emotion and cognitive function. Prerequisite: PSY 110.

PSY 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.

PSY 250. Principles and Applications of Learning.

Cr. 3. Concepts of learning derived from research with human and nonhuman subjects with emphasis on the use of these concepts and techniques to help solve common behavioral problems. Prerequisite: PSY 110.

PSY 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.

PSY 270. Introduction to Industrial/Organizational Psychology.

Cr. 3. Applications of psychological principles, techniques, and theories to the work environment. Topics will include leadership,

- motivation, job satisfaction, performance appraisal, employee selection, and teamwork. Prerequisite: PSY 110.
- PSY 285. Behavioral Interventions in Developmental Disabilities.**
Cr. 3. A practicum giving first-hand experience in utilizing behavior modification techniques to facilitate acquisition of pre-learning skills by autistic children. Open to majors and non-majors. Prerequisite: PSY 110 and consent of the instructor. S/U grade only.
- PSY 330/ COUN 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. Prerequisite: PSY 110.
- PSY 332/ COUN 532. Psychology of Adulthood and Aging.**
Cr. 3. Examination of adult development from the end of adolescence to old age from a psychological perspective. Prerequisite: PSY 110.
- PSY 335/ COUN 535. Psychology of Personality.**
Cr. 3. An introduction to various theories of personality, with emphasis on their implications for current psychological applications and research. Prerequisite: PSY 110.
- PSY 345. Sensation and Perception.**
Cr. 3. An introduction to the study of sensory and perceptual processes and the physiological mechanisms that underlie them. Prerequisite: PSY 110.
- PSY 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.
- PSY 350/ PSY 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. Prerequisite: PSY 110.
- PSY 351. Laboratory in Human Cognition.**
0+2.5, Cr. 1. Laboratory to be taken in conjunction with PSY 350. Prerequisite: PSY 201 and 202 or consent of the instructor.
- PSY 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. Prerequisite: PSY 110.
- PSY 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.
- PSY 360/560. History and Systems of Psychology.**
Cr. 3. This course is a survey of the individuals and schools of thought that have influenced and still influence psychology. The philosophical beginnings of psychology and the development of a scientific approach to studying human nature are discussed in an attempt to understand contemporary trends in the field of psychology. Prerequisite: junior standing and 15 credits in psychology.
- PSY 390/ PSY 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. Prerequisite: PSY 110.
- PSY 445/ COUN 545. Community and Health Psychology.**
Cr. 3. An introduction to the theories and practice of both community psychology and health psychology with an emphasis on the relationship and synthesis of these two disciplines as well as their unique differences. Prerequisite: PSY 110 and junior standing.
- PSY 461. Introduction to Counseling.**
Cr. 3. A review of contemporary counseling theories and processes as they are applied to various problem areas. Prerequisite: PSY 110 and junior standing.
- PSY 465/ PSY 565. Psychology and Law.**
Cr. 3. The application of psychological knowledge to the legal system. Topics will include eyewitness testimony, jury decision-making, the insanity defense, jury selection and lie detection. Prerequisite: PSY 110 and junior standing.
- PSY 470/ COUN 570. Testing and Measurement.**
Cr. 3. Principles and methods of psychological measurement and evaluation with application to specific testing situations. Course intensification option: 1 Cr. Prerequisite: PSY 201 and junior standing.
- PSY 475/575. Human Neuropsychology.**
Cr. 3. An introduction to the structure and function of the human brain, and the effects of various neurological disorders on cognition, emotion, behavior, learning, and other important

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aspects of the human person. Prerequisite: PSY 110 and junior standing, or consent of the instructor.

PSY 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 instructor, 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. S/U grade only.

PSY 493. Senior Seminar.

Cr. 0. An integrative experience designed as a capstone for psychology majors. Prerequisite: PSY 110 and senior standing. S/U grade.

PSY 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.

PSY 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.

PSY 497. Honors Work in Psychology.

Cr. 3. See Honors Work, page 54.

PSY 498. Honors Candidacy in Psychology.

Cr. 3. See Honors Work, page 54.

PSY 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 only.

Social Work

Associate Professor Ringenberg (Chair); Lecturers Crumpacker-Niedner, Gaebel-Morgan.

Social work is defined by the U.S. Department of Labor as "a profession of individuals with a strong desire to improve people's lives". Social workers seek to help individuals, families, organizations, groups, and communities engage resources that will alleviate human problems. Social work is also concerned with enabling clients to develop capacities and strengths that will enhance social functioning.

The scope of social work is national and international. There are over half a million highly trained social work professionals in the United States that are committed to values of social and economic justice, empowerment, and advocating for vulnerable and disenfranchised groups.

The Bachelor of Social Work degree (BSW) at Valparaiso University offers a degree from a long-standing accredited program that prepares graduates for generalist practice in direct human service positions. This professional program is built on a strong liberal arts base and a solid social work curriculum that provides students with core foundational knowledge, values, and skills that are transferable to different settings, populations, and social issues.

Students are engaged in learning both in and out of the classroom. The social work major consists of 44 credits plus general education requirements and 18 credits of required interdisciplinary courses, of which most are interchangeable in the general education requirements for the Bachelor of Arts. Students also are involved in learning activities that allow them to apply classroom knowledge such as volunteering at a social service agency as part of the introductory course, visiting the state legislature, and presenting at undergraduate research conferences.

Social work majors at Valparaiso University can broaden their learning by pursuing co-curricular plans of a double major or minor that combines their interest in disciplines such as psychology, theology, international service, political science, sociology, or foreign language. In addition,

students are encouraged to engage in off-campus learning experiences such as Urban Studies, as well as semesters in Namibia, Mexico, China, Cambridge, and Reutlingen.

Internships at Valparaiso University set our graduates apart, as this experience fosters the integration of empirical and practice-based knowledge and promotes the development of professional competence. Field education is systematically designed, supervised, coordinated, and evaluated according to stringent criteria established by the Council on Social Work Education (CSWE). This educationally directed internship program offers students opportunities for practice in a variety of settings in the community. Students complete a 100-hour internship in the spring semester of their junior year and a 450-hour internship in the fall and spring semesters of their senior year.

Graduates from our program are highly marketable and are employed in child welfare, mental health, schools, hospitals, elder care, church, shelters, corrections, and other social service settings. Alumni typically enter graduate school to pursue a Master of Social Work within five years of graduation and are eligible to apply with advanced standing which gives them credit on courses taken within the BSW curriculum and reduces graduate school to two to three semesters. Graduates often pursue postgraduate experiences in the Peace Corps, Lutheran Volunteer Corps, and Americorps.

Faculty are active in the community and have well-defined areas of interest and expertise. The faculty to student ratio of 1:13 enables a rich learning environment that focuses on student development and collegiality.

The Social Work Department has a well-established Student Social Work Organization (SSWO) involved in community projects and also has established a chapter of the Phi Alpha National social work honor society. The Iota Lambda chapter recognizes students who have achieved a 3.25 grade point average in social work and a 3.00 grade point average in all required coursework for the Bachelor of Social Work degree. Potential members are identified

who exemplify the characteristics of consummate social work professionals involved in the community and university.

Major. A minimum of 44 credit hours in social work constitutes a major. Courses must include SOCW 151, 210, 220, 240, 330, 340, 365, 410, 455, 456, 485, 486 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 instruction is required for social work majors enrolled in SOCW 340, 455, and 456. Field assignments are concurrently arranged with coursework. The internship selection must meet with Department approval, under the Field Director, and consists of 100 hours in the spring semester junior year and 450 hours for the fall and spring semester senior year. Students are required to maintain an overall 2.50 grade point average in all required social work courses. Liability insurance for field practice is required.

Minor. 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, the completion of admissions procedures, and a 2.5 grade point average in the major. Each social work major is assigned a faculty advisor. A Student Handbook 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. The completion of all required social work courses and general education requirements of the College of Arts and Sciences 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 advisor at the beginning of each semester.

SOCW 151. 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. Foundational theories and conceptual materials are introduced. This course is required for all social

work majors and minors. It can also be of great benefit to students pursuing careers in fields such as corrections, education, ministry, law, nursing, medicine and church work. A 25-hour community volunteering experience is required.

SOCW 210. Social Welfare: Policy and Services.

Cr. 3. The objectives of this course are historical overviews of the economics, social and political forces that shape the social welfare structure. Descriptive analyses of current social welfare programs, public and private, are examined. Professional values and ethics undergird the content that further examines macrosystem matters affecting human diversity and social justice. This course offers activities in and out of the classroom that are designed to help students see the relevance of social policy. May be used to fulfill the Social Science component of the General Education Requirements.

SOCW 220. Human Behavior and Social Environment.

Cr. 3. A study of bio-psycho-social and cultural variables that affect human development and behavior. General systems theory is used as a theoretical foundation. The use of various other theoretical frameworks is examined as they apply to different social groups (friendship, family, organization, community). Social systems theory is intentionally integrated throughout the course content. Gender, race, sexual orientation, and social class issues related to human development and interaction are analyzed. May be used to fulfill the Social Science component of the General Education Requirements.

SOCW 240. Strategies of Intervention.

Cr. 3. This course is a unique experiential and introductory interviewing course where students critically examine and learn about foundational theory for core interviewing skills. Additionally, they learn elements of basic counseling theory, the overarching helping process in a multicultural context, and then apply theoretical frameworks in role play, videotaped, and cross cultural exchanges. Built on social work systems theory and the strengths perspectives, students gain experience in applying theory and skills with sensitivity to work with people from diverse backgrounds. The aim is for students to develop beginning level intentional competence as communicators, interviewers, and change agents with client systems.

SOCW 330. Vulnerable Populations: Color, Gender, and Orientation.

Cr. 3. This course explores the sociopolitical factors that affect current human responses of diversity, major North American 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. Prerequisite: junior/senior status. May be used to fulfill either the Cultural Diversity course component or the Social Science component of the General Education Requirements.

SOCW 340. Professional Intervention and Human Services.

3+2, Cr. 5. An integrated learning, practice course, which introduces students to the social work planned change process and generalist intervention model. Students learn theories, concepts, and an ethical guide that provide a framework for generalist social work intervention. Students complete 100 field hours, during which they apply theoretical frameworks in agency settings. Assignments, both in the classroom and in the field, are compiled to create the Junior Level Learning Portfolio. Prerequisites: SOCW 151, 210, 220 and 240.

SOCW 365. Introduction to Methods of Social Research.

Cr. 3. This course examines the application of concepts of research methodology to social work practice. All students will conduct original research and present it in both oral and poster presentations at conferences. The research content includes qualitative and quantitative research methodologies; data analysis, including statistical procedures; systematic evaluation of practice; instrument development; proposal writing and critique, biases in research methods and reports. Prerequisite: SOCW 151, 210, 220, 240, and PSY 201.

SOCW 390. Social Work Colloquium.

Cr. 2-3. A study of selected topics reflective of contemporary concerns 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.

SOCW 391. Advanced Seminar in Social Work.

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.

SOCW 395. Independent Study.

Cr. 1-3. This curricular offering gives students an opportunity to independently examine a topic in

depth beyond the traditional social work courses. Credit is based on the anticipated length and rigor of the project. Students are required to be in good standing and have at least a 2.5 grade point average. Students are assigned a faculty mentor for the project based on faculty expertise and workload. Prerequisite: junior standing and consent of the Chair of the Department.

SOCW 410. Analysis of Social Policy.

Cr. 3. An intensive study of social welfare policy, principally in the United States, and a historical review of the contemporary forces, primarily social and economic, that have shaped their development. Students will each select a specific policy area in which to focus their research. Common policy areas chosen include social services, education, housing, income maintenance, protective services, and health care services. Prerequisites: senior standing, consent of the Chair of the Department, SOCW 151, 210, 220, 240, 330, 365.

SOCW 455. Social Work Practice I.

Cr. 3. This course is the first segment of the senior theory component designed to prepare social work students to integrate theory and other classroom concepts into actual practice situations. Students continue their integration of learning pertaining to practice content that encompasses ethics, knowledge, and skills for working effectively with diverse individuals, families, groups, and agencies with particular emphasis on the micro and mezzo levels of practice. For practice evaluation purposes, students identify, analyze, and implement empirically based interventions designed to assist clients in achieving goals. Students further develop their professional social work identity, where critical thinking informs action. Prerequisites: senior standing, social work major, and SOCW 340. Corequisite: SOCW 485.

SOCW 456. Social Work Practice II.

Cr. 3. This course is the continuation and final theory component for senior social work students. The primary focus is on critical thinking, professional use of self, practice, and ethical engagement needed for effective intervention, particularly at the macro level of practice. Students prepare, evaluate, and reflect on their undergraduate baccalaureate experience by compiling the Senior Level Learning Portfolio where they demonstrate growth and proficiency in the overarching program objectives. Prerequisite: SOCW 455. Corequisite: SOCW 486.

SOCW 485. Integrative Seminar I.

3+3, Cr. 6. This course is the first segment of the senior social work practice component designed to prepare competent and effective social work students to become generalist practitioners. Students complete a concurrent educationally directed field practicum of 225 hours on Tuesdays and Thursdays in a community social

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service agency. Students are required to complete assignments reflecting on their interventions and observations. Prerequisites: senior standing, social work major, and SOCW 340; corequisite: SOCW 455.

SOCW 486. Integrative Seminar II.
2+3, Cr. 5. This course is the continuation and final professional foundation course in the practice sequence for senior social work students. The primary focus is on critical thinking, professional use of self, practice, and ethical engagement needed for effective intervention. Students complete a concurrent educationally directed field practicum of 225 hours on Tuesdays and Thursdays in a community social service agency. Students are required to complete assignments reflecting on their interventions and observations, building on the reflections in SOCW 485. Prerequisite: SOCW 485; corequisite: SOCW 456.

SOCW 493. Current Issues in Social Work.
Cr. 1. This seminar is jointly designed by senior majors and faculty to deal with those issues of concern which currently face clients and practitioners in the social services delivery system. Prerequisite: SOCW 455 and SOCW 485.

SOCW 497. Honors Work in Social Work.
Cr. 3. See Honors Work, page 54.

SOCW 498. Honors Candidacy in Social Work.
Cr. 3. See Honors Work, page 54.

Sociology and Criminology

Associate Professor Venturelli, (Chair); Assistant Professors D. Bartusch, Yogan.

The Department of Sociology encompasses the disciplines of sociology, criminology, and anthropology, 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 by 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. 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. (15 credit hours)
All students who major in the department are required to enroll in the following courses which comprise the common core: SOC 110, 275, 310, 320, 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 multicultural 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 take at least two (2) additional 200 level courses, two (2) additional 300 or 400 level courses and one (1) additional course at any level.

Students who seek careers involving agency administration should consider the Liberal Arts Business Minor (page 239).

The Concentration in Criminology.
This concentration is intended for students who plan to prepare for a career in law or employment in the federal, state, or local 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, (265 or 270), 386, and one of (350, 360, 391, or 445). Students who are completing the concentration in criminology must also take two other courses at the 200 level or beyond.

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 (110 or 111), 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 239) or the Chicago Urban Semester (page 58).

Minor. A minor consists of at least 18 credit hours in sociology. Courses must include SOC 110, 310, 320 and at least one 200 level course, one 300 or 400 level course, and one course from any level.

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.

Plan of Study. Each student taking a major or minor in sociology must have a plan of study approved by designated departmental advisors. Students are advised to take SOC 110 and SOC 130 during their freshman or sophomore years. They should take SOC 275, 310, and 386 during their junior or senior year. The capstone course should be taken during their senior year and only after they have taken their other required sociology courses.

Level I. Level I courses are designed to give students a broad overview of sociology. These courses typically expose the student to many different sociological topics and are taught at the introductory level.

SOC 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. Normally offered every semester.

SOC 130. The Criminal Justice System.
Cr. 3. A survey of the operations, functions and interactions of the police, the courts and correction agencies; that is, formal organizations of social control. Field trips and observation of selected agencies may be scheduled.

SOC 150. Introduction to Anthropology.
Cr. 3. An introduction to the study of humankind, and an overview of the five major branches of anthropology: biological anthropology, archeology, linguistics, cultural anthropology, and applied anthropology. May be used to fulfill the

Cultural Diversity course component of the General Education Requirements.

SOC 160. Contemporary Social Problems.
Cr. 3. Sociological perspectives are applied to the identification, explanation, and analysis of social problems in American society and in selected world societies. Course content focuses on: 1) examining the major institutions of society - the family, economy and polity - and how they can perpetuate social problems; and 2) examining inequalities based on class, race, and gender. These topics can include poverty, homelessness, racism, sexism, drug abuse, crime, juvenile delinquency, and violence. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

Level II. Courses which focus on one broad sociological topic and provide information about fundamental concepts and theoretical approaches used within sociology. No prerequisites.

SOC 220. The Family.
Cr. 3. A study of the family as a basic social unit and institution, with emphasis on the various forms and functions of the family. Special consideration is given to modern influences on the interaction and organization of American family life.

SOC 230. Globalization.
Cr. 3. An exploration of the globalization process, including the changing organization of the world economy, the globalization of industry from a sociological perspective, problems of population growth and environmental degradation, and the spread of ethnic conflicts. The course will examine the implications of globalization for politics, culture, work, gender, the environment, social movements and violence. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

SOC 245. Social Psychology.
Cr. 3. The social-psychological study of the ways society influences the behavior of the individual. Course focuses on the theoretical approaches of symbolic interaction, social exchange, and dramaturgical analysis.

SOC 250. Principles of Social/Formal Organizations.
Cr. 3. The study of formal social organizations taught through an analysis of classical and current theoretical perspectives regarding the sociology and social psychology of organizations and organizational behavior. Topics will include a study of organizational structure and environment, public and private organizations, centralization versus decentralization, bureaucracy, and the role of racism and sexism in organizations.

SOC 260. Deviance.

Cr. 3. An examination of deviant behavior with emphasis upon theories explaining how people become deviants. Surveys the forms of deviance: crime, mental illness, drug and alcohol abuse, and sexual deviation. Field trips may be scheduled.

SOC 265. Crime and Society.

Cr. 3. As an introduction to criminology, this course examines criminal behavior, the theories used to explain crime, and a brief analysis of societal responses to crime. Normally offered every spring.

SOC 270. Juvenile Delinquency.

Cr. 3. A criminological course that focuses specifically on crime committed by youth, typically early through late adolescence. This course explores the nature and extent of delinquency, theory and research, and societal responses to delinquency. Normally offered every fall.

SOC 275. Systems of Social Stratification.

Cr. 3. This course examines three major social division found in the United States and in other postmodern societies. The course will examine: 1) gender identity and behavior, 2) social class, and 3) race and ethnicity. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

Level III. Courses designed to provide depth of experience and understanding in narrow subject areas.

SOC 310/510. Development of Sociological Theory.

Cr. 3. Study of the historical development of sociological thought and the contributions of major theorists and their understanding of society. Required of all majors and minors. Prerequisite: SOC 110 or consent of the Chair of the Department. Normally offered each spring.

SOC 320/520. Research Methods in Sociology.

Cr. 3. Study of research methodologies used in both qualitative and quantitative sociological contexts. Skills are taught through small-scale projects whenever possible. Required of all majors and minors. Prerequisite: SOC 110 or consent of the Chair of the Department. Normally offered every fall.

SOC 321/521. Data Analysis.

Cr. 3. This course teaches basic level analysis of both qualitative and quantitative data. Students will learn how to use software packages to analyze quantitative and qualitative data. The class will also cover inferential and descriptive statistics, how to code data, how decisions are

made about data (what to include, what to eliminate), and how to report data analysis in ways that meet the needs of different constituent groups. Prerequisites: MATH 110 or placement higher than MATH 110 on the Math placement exam and SOC 110 and 320, or consent of the Chair of the Department.

SOC 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. Normally offered fall semester of even numbered years.

SOC 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. Prerequisite: SOC 110.

SOC 330. Points of Intersection: Mexico and the United States.

Cr. 3. Offered only at the Puebla, Mexico, Study Center.

SOC 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. Prerequisite: SOC 110 or 275 or consent of the instructor.

SOC 347/547. 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 racial and ethnic background influence social behavior. May be used to fulfill the Cultural Diversity course component of the General Education Requirements. Prerequisite: SOC 110 or 275 or consent of the instructor.

SOC 350/550. 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. Prerequisite: SOC 110 or 130 or consent of the instructor.

Sociology and Criminology

SOC 360/560. Penology.

Cr. 3. A critical social scientific examination of prisons, jails, community corrections and paroling authorities with emphasis on both historical development and current trends. Field trips may be scheduled. Prerequisite: SOC 110 or 130 or consent of the instructor.

SOC 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. A minimum of 128 internship hours and a biweekly class are required. Students planning an internship in a spring semester must complete an application for placement with the Internship Coordinator by October 1. For those students planning an internship in a fall semester, the deadline is April 1. Experience and workload vary with both the field of study and the agency assignment. Required of all criminology students, recommended for all others. Prerequisites: Junior standing, consent of the internship coordinator, and SOC 130 for criminology students or SOC 110 for all other sociology majors.

SOC 390/590. Issues in Sociology.

Cr. 3. An exploration of some of the issues debated by sociologists today. Issues may include sexism, racism, ageism. May be repeated for credit if the issues are different. Prerequisite: SOC 110 or 130 or 160 or consent of the instructor.

SOC 391/591. Issues in Criminology.

Cr. 3. An exploration of some issues debated by criminologists today. Issues may include feminist or Marxist criminology, new left realism, criminology as peace making, victimology, and cross-cultural comparative crime. May be repeated for credit if the issues are different. Prerequisite: SOC 110 or 130 or consent of the instructor.

SOC 392/592. Issues in Anthropology.

Cr. 3. An exploration of some of the issues debated by anthropologists today. These include globalization and sociocultural development, sickness and health, nationalism, culture and

identity, science and technology, global media, and ethnography and narrative. May be repeated for credit if the issues are different. Prerequisite: SOC 150 or consent of the instructor.

SOC 445/545. Sociology of Law.

Cr. 3. The study of the place of law in society, the relationship between law and social change, law and other social institutions. Prerequisite: SOC 110 or 130 or consent of the instructor.

SOC 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.

SOC 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.

SOC 486. Internship in Criminal Justice II.

Cr. 3. Continuation of SOC 386. Prerequisite: SOC 386.

SOC 493. Senior Seminar.

Cr. 3. An integrative reading, discussion, and research course that applies prior sociological knowledge to contemporary concerns and problems. Required of all concentrations. Prerequisite: SOC 110, 310, and 320 or consent of the Chair of the Department. Normally offered every fall.

SOC 495. Independent Study in Sociology/Criminology.

Cr. 1-4. 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.

SOC 497. Honors Work in Sociology.

Cr. 3. See Honors Work, page 54.

SOC 498. Honors Candidacy in Sociology.

Cr. 3. See Honors Work, page 54.

Theatre

Professors Orchard (Chair), Paul; Associate Professors A. Kessler, White; Lecturer Stalmah.

The Theatre Department prepares students for service to a society in which knowledge of the theatre arts is critical 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 theatre and allied industries or in industries where knowledge of theatre 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 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. Moreover, the study of dramatic literature is given special prominence in the curriculum.

Major. A minimum of 34 credit hours in theatre. The theatre major must include THTR 129, 133 (taken 4 times), (134 or 136), 230, 231, 232, 235, 238, 239, (334 or 337), and one from (356, 431, and 435).

Minor. A minor in theatre consists of 16 credit hours in courses agreed upon by the student and the department chair. The minor may include a one-credit independent project.

SPECIALIZED MINORS

Acting Minor. The minor must include THTR 134, 136, 230, 235, and 357 or 435. By the end of the completion of the course work, the student must either complete a performance practicum in a University Theatre production (THTR 133 D) or do an independent project preparing scenes and monologues for public performance (THTR 390) for one credit hour.

Musical Theatre Minor. A minimum of 16 credits in theatre and dance. The minor must include THTR 136, 235, 290 (two different dance topics totaling 6 credits) and (335 or 337). Toward the end of the completion of course work, the student minoring in Musical Theatre must complete an independent project (THTR 390, 1 Cr.) culminating in a public performance.

Theatre Production Minor. The minor must include THTR 129, 230, 231, (431 or 433), and one course in theatre literature (238, 239, 334, or 337). Toward the end of the completion of the course work, the student in Theatre Production must do an independent project (THTR 390, 1 Cr.) directing a short play for public exhibition.

Theatre Design Minor. The minor must include THTR 230, 231, 356, and one course in theatre literature (238, 239, 334, or 337). Toward the end of the course work, the student in Theatre Design must do an independent project (THTR 390, 1 Cr.) preparing designs and working drawings for costumes, scenery and lighting for a selected play or dance production.

Teaching Programs. Students who plan to teach speech, theatre, or dance in secondary schools with a major or minor in Theatre 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 56.

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

Approval of Schedules. All students pursuing a major or minor in Theatre must have their schedules approved by the Chair of the Department or a designated departmental advisor 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 also 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 three major productions, experimental theatre, student-directed plays, Soul Purpose, a touring liturgical drama troupe, and theatre outreach performances. Theatre work is focused in performance, production, and management. 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.

THTR 101. Introduction to Theatre.

Cr. 3. An introduction to the field of theatre, surveying the development of performance and design, technology and dramatic literature, especially during the past twenty-five years. Field trip to Chicago. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

THTR 129. Basic Stagecraft.

2+2, Cr. 3. An introduction to the technology, terminology and practices of modern stagecraft. This course prepares students for more advanced work in theatre technology, costume construction and design, scenery construction and design, lighting design and stage management. Offered fall semester.

THTR 133. Theatre Practicum.

0+2, Cr. 1, or 0+4, Cr. 2. Creative work in the production of stage plays or dance productions. Students majoring in theatre must elect this course a minimum of four times (4 credits total) each time in a different production area: i) management, ii) scenery and lighting, iii) costume and makeup, and iv) performance. This course may be repeated up to maximum of six credit hours.

THTR 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 articulation improvement, dialect correction and/or acquisition. Offered fall semester.

THTR 136. Movement for the Theatre.

Cr. 3. A course in developing the physical skills required for live theatrical performance 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 spring semester.

THTR 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. Offered spring semester in even-numbered years.

THTR 230. 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. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

THTR 231. 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. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements. Prerequisite: THTR 129.

THTR 232. Applied and Interactive Theatre.

Cr. 3. Students will be introduced to the theories, methods, and performance practices of Applied Theatre and will explore theatre techniques used outside of traditional theatre professions, focusing especially on theatre's use in education, psychology, and sociology. Fieldwork for this course will include performances of plays, developed and rehearsed in class, in local schools. This interdisciplinary course will be useful for students preparing for a variety of professions. Offered in the spring semester of each year. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

THTR 235. Acting I.

2+2, Cr. 3. A first course in the theory and practice of acting through several American interpretations of the Stanislavski system as well as technique exercises for the body, voice,

intellect and emotions using one open scene and one monologue. Offered spring semester. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements. Prerequisite: sophomore standing.

THTR 238. World Theatre and Drama I.

Cr. 3. A study of European theatre history and dramatic literature from ancient Greece to the Renaissance, featuring an integrated analysis of visual art, architecture, music, drama, and social history. Development of dramatic and theatrical art is traced through media presentations, live performances, lectures, and discussions. Prerequisite: sophomore standing or approval of the Chair of the Department. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements. Offered fall semester.

THTR 239. World Theatre and Drama II.

Cr. 3. A study of European and American theatre history and dramatic literature from the Renaissance through the modern period, featuring an integrated analysis of visual art, architecture, music, drama, and social history. Development of dramatic and theatrical art is traced through media presentations, live performances, lectures, and discussions. Prerequisite: sophomore standing or approval of the Chair of the Department. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements. Offered spring semester.

THTR 252. Writing for Stage and Screen.

Cr. 3. Devoted to the study of creative writing in dramatic form, giving special attention to the particular requirements of stage, film and television. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements. Prerequisite: CORE 110 or consent of the instructor. Offered fall semester in alternate years.

THTR 290. Dance Topics.

Cr. 1-3. Introductory courses in dance techniques offered on a rotating basis. Topics may include ballet, jazz, modern, and tap dance technique. May be repeated for credit when topics are different. Offered each semester. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements

THTR 330. Costume II.

Cr. 3. A continuation of work in costume technology and design. Emphasis on flat-patterning, draping and costume management. Prerequisite: THTR 230. Offered spring semester of even-numbered years.

THTR 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 even-numbered years. May be used to fulfill the Cultural Diversity course component of the General Education Requirements

THTR 335. Acting II.

2+2, Cr. 3. A continuation of work in acting theory and technique through scene study and monologues culminating in a public performance in the annual Acting-Directing Showcase. Two evening rehearsals during the week of the showcase are required. Prerequisite: THTR 235. Offered fall semester.

THTR 337/537. American Theatre.

Cr. 3. A study of American theatre and drama, with particular emphasis given to the development of musical theatre and to the drama of the modern period, including the work of playwrights such as O'Neill, Miller, Williams, Wilson, Baraka, Norman, Albee, and Kushner. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements. Prerequisite: junior standing or consent of the Chair of the Department. Offered spring semester of odd-numbered years.

THTR 356/556. Design for the Theatre.

2+2, 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 dance production. Offered spring semesters, odd-numbered years. Prerequisites: THTR 129, 230 and 231 or consent of the instructor.

THTR 357. Acting for the Camera.

2+2, Cr. 3. A practical course in relating acting techniques to the special requirements of film and television through exercises and video recorded scene work. Special attention is given to the inner psychological and emotional process of the on-camera actor. Prerequisite: THTR 235. Offered in the spring semester, odd-numbered years.

THTR 381. Cooperative Education in Theatre I.

Cr. 0.5-3. Professional work experience with a cooperating employer. Written report required. Prerequisite: approval of the Chair of the Department.

THTR 386. Internship.

Cr. 1-3. 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.

Theatre

THTR 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 Film, Commedia dell'Arte, Entertainment and the Law, Lighting for Stage and Studio.

THTR 399. Colloquium.

Cr. 0. A required course for theatre majors which provides weekly opportunities to examine a variety of theatre and theatre-related vocations. Offered each semester.

THTR 431. Play Directing.

2+2, Cr. 3. Study in the theories and studio practice in the art of directing for the theatre, including the process of play selection and analysis, methods of casting, principles of collaboration, staging techniques, and rehearsal procedures. Prerequisites: THTR 230, 231, and 235 or consent of the Chair of the Department. Offered in the fall semester.

THTR 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: THTR 431 or consent of the Chair of the Department. Offered in summer session only.

THTR 435. Acting III.

Cr. 3. A course in advanced acting techniques for performing classical and modern works. Students will concentrate on scene study with emphasis on voice, movement, gesture, character, language, tempo, and special techniques for Shakespeare and classical Greek drama. For students majoring or minoring in Theatre. Prerequisite THTR 335. Offered spring semester, even-numbered years.

THTR 497. Honors Work in Theatre.

Cr. 3. See Honors Work, page 54.

THTR 498. Honors Candidacy in Theatre.

Cr. 3. See Honors Work, page 54.

Theology

Professors Albers, R. DeMaris, Grundmann, Harre, Meilaender, J. Moore, Niedner (Chair), Wangerin; Associate Professors M. Bartusch, Becker, Heider, van Doorn-Harder, Schoer; Assistant Professors L. Driver, Pati; Lecturers Leeb, Weber.

The Theology Department of Valparaiso University has as its main 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. The Theology component of the General Education Requirement at Valparaiso University is the freshman core course and two courses of three credit hours each. These courses shall ordinarily be taken from each of the two levels indicated in the course listings below. A Foundational Course is ordinarily taken in the sophomore year. In either the junior or the senior year, each student must take at least one course from the Upper Level listings.

Major. A minimum of 30 credit hours in theology constitutes a major. Courses must include a course in biblical studies (310-319), a course in the history of the Church and its thought (320-326, 330-332), a course in contemporary Christian religion and ethics (334, 337, 338, 340-346, 353 [when topic is appropriate]), a course in world religions (360-369), and seminar 493. Students shall also

take five additional courses chosen in consultation with their departmental major advisor. Majors must take at least two courses (6 credits) in addition to 493 that are designated in the *Schedule of Classes* as courses primarily intended for theology majors (not fulfilling this stipulation are 451, 453, 480, 493).

Minor. A minimum of 18 credit hours in theology, chosen by the student in consultation with the Chair of the Department or the Chair's designated representative, constitutes a minor. At least four courses shall be taken at the Upper Level (300-400 courses).

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. Students preparing for seminary should, with their first major, take the Complementary Major in Pre-Seminary Studies; see pages 165-166.
3. Students interested in service as Directors of Christian Education or Youth Ministers should, with their first major in theology, take the complementary major in Youth, Family, and Education Ministry (see page 187).

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 advisors at the beginning of each semester.

Foundational Course. Ordinarily sophomore year. Prerequisite for this course is one semester of the freshman core program.

THEO 200. The Christian Tradition.

Cr. 3. A study of the origins and development of Christian thought as it forms communities and engages the world. Prerequisite: CORE 110 or CORE 115 or CC 110 or CC 115.

Upper Level. General Education courses numbered 300-399 may not be taken before the sophomore year, although they are ordinarily taken in the student's junior or senior year.

BIBLICAL STUDIES

THEO 310/510. Topics in Biblical Studies
Cr. 3. A study of a specific topic such as archaeology and the religions of the ancient near East, psalms and prayers of ancient Israel, and issues in biblical interpretation. May be repeated for credit if topics are different.

THEO 311/511. 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.

THEO 312/512. Understanding the New Testament.
Cr. 3. A study of the history and theology of the New Testament with attention to its rootage in the Old Testament.

THEO 314/514. 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.

THEO 316/516. 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.

THEO 317/517. The New Testament in Its Cultural Environment.
Cr. 3. A study of the societies and culture in which Christian communities arose with a view to understanding the New Testament better and determining its contemporary significance more accurately. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

THEO 318/518. 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.

THEO 319/519. Studies in Pauline Thought.
Cr. 3. Studies in the life and thought of Saint Paul, focusing on selected New Testament letters.

FOUNDATIONS OF CHRISTIANITY

THEO 320/520. Topics in Christian History.
Cr. 3. A study of a specific topic such as representative Christian thinkers, comparative Christianity, Calvin and Calvinism, Lutherans in America, and Catholics in America. May be repeated for credit if topics are different.

THEO 322. Early and Medieval Christianity.
Cr. 3. A study of major events and developments in Christian thought from the apostolic age through the medieval period.

THEO 323/523. Christianity from the Reformation to the Present.
Cr. 3. A study of major developments in Christian history and thought from the Reformation period to the present.

THEO 324/524. Christianity in America.
Cr. 3. An investigation of the history of Christianity in America, with special emphasis on the interaction between religion and cultural developments.

THEO 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.

THEOLOGY, ETHICS, AND PRACTICE

THEO 330/530. Topics in Contemporary Theology.
Cr. 3. A study of selected topics, such as contemporary Lutheran theology, feminist theology, and liberation theology. May be repeated for credit if topics are different.

THEO 332/532. Luther and Lutheran Confessional Theology.
Cr. 3. Issues are studied against the background of the sixteenth century and with a view to ascertaining the value of the Confessions for the life and work of the church today.

THEO 334. Constructive Christian Theology.
Cr. 3. A study in the making and critiquing of an ordered and coherent structure of thought about the Christian faith, with special reference to the resources of biblical and Lutheran theology.

THEO 337/537. 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. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

- THEO 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.
- THEO 340. Topics in Religious Ethics.**
Cr. 3. An examination of a selected thinker or theme in religious ethics. May be repeated for credit if topics are different.
- THEO 341. Bioethics.**
Cr. 3. (Also 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.
- THEO 343. 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 judge a variety of possible theological views, test views with concrete experiences and real issues, and begin the process of forming a personal viewpoint.
- THEO 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.
- THEO 346/546. Contemporary Moral Issues.**
Cr. 3. An examination of selected moral issues such as warfare, abortion, and care of the environment.
- THEO 351. Studies in Theology and the Arts.**
Cr. 3. An examination of a selected topic such as Christian faith and modern literature, theology and the visual arts, and religion in cinema. May be repeated for credit if topics are different.
- THEO 353. Studies in Theology and Practice.**
Cr. 3. An examination of selected topics such as Christian response to social victims, Christian faith and politics, ethics of cultural encounter, and Christian education. May be repeated for credit if topics are different.
- THEO 355/555. Liturgical Theology and Practice.**
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.
- THEO 357/557. The Church in the World.**
Cr. 3. A study of the life and mission of the church with emphasis on movements for renewal, reform and reunion. Special attention is given to developments in Latin America and/or Africa. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.
- THEO 358/558. Studies in Theology, Health and Healing.**
Cr. 3. An examination of a selected topic such as death and dying, or spiritual needs and health care. May be repeated for credit if topics are different.
- THEO 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.
- THEO 451/551. Theology of Diaconal Ministry.**
Cr. 3. A study of the historical and theological foundations of diaconal ministry. Attention is given to the role of the diaconate in the church, the development of diaconal community, and the nurture of a spirituality of service. Prerequisite: junior or senior standing.
- THEO 453/553. Clinical Education for Ministry.**
Cr. 3. A carefully supervised practicum in ministry to the physically ill and the elderly. Designed principally for senior Deaconess and Pre-Seminary students, this course in practical theology engages student in disciplined reflection on their ministry. Usually S/U basis. Prerequisite: junior or senior standing.
- WORLD RELIGIONS**
- THEO 360/560. Topics in World Religions.**
Cr. 3. A study of a selected topic, such as families of Abraham, south Asian religions, indigenous religions, new religions, the history of the interaction between religions or between religions and cultures, and the history of the study of religion. May be used to fulfill the Cultural Diversity course component of the General Education Requirements. May be repeated for credit if the topics are different.
- THEO 361. Studies in Judaism.**
Cr. 3. Studies of selected topics in Judaism: biblical, rabbinic and contemporary. May be repeated for credit if the topics are different. These offerings are sometimes sponsored in part by the Jewish Chautauqua Society.
- THEO 362/562. Understanding Islamic Religion and Culture.**
Cr. 3. A study of the life of Muhammad, the teachings of the Quran, traditional practices and institutions in Islamic society, and significant contemporary developments in the Muslim world. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

THEO 363/563. 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. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

THEO 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. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

THEO 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. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

THEO 366. Religion in 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). May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

THEO 367. Religions in America.

Cr. 3. An examination of a selected topics, such as recent religious movements in America, history of religions in the United States, etc. May be repeated for credit if topics are different.

THEO 368. Native American 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. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

THEO 369/569. Perspectives on the Religious Quest.

Cr. 3. A study of the history, themes and structures of religious experience in various religions of the world. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

SPECIALIZED COURSES

THEO 399. Church Vocations Symposium.

Cr. 0. Presentations and discussions of topics of special interest to students in pre-seminary studies or who are preparing for other church vocations. All students in these curricula are expected to register for this course each semester and to attend each session. S/U grade.

THEO 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. A maximum of three credit hours may be applied to the theology major. 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.

THEO 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.

THEO 490/590. Topics in Theology.

Cr. 1-3. A study of a selected topic in theology, intended primarily for majors, minors, and advanced students. May be repeated for credit if topics are different.

THEO 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.

THEO 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, 9 credit hours in theology, and consent of the Chair of the Department.

THEO 497. Honors Work in Theology.

Cr. 3. See Honors Work, page 54.

THEO 498. Honors Candidacy in Theology.

Cr. 3. See Honors Work, page 54.

Youth, Family, and Education Ministry

This program of study is administered by the Department of Theology through its Center for Church Vocations.

Objectives. The program in Youth, Family, and Education Ministry offers a bachelor's-level training program for students who seek to serve Lutheran and other Christian congregations as a staff member responsible for ministry to young people, to families, and/or for the parish program in religious education. This program seeks to provide specific courses and practical learning experiences for students planning to work with children and adolescents and their families. The program offers a great degree of flexibility, though it builds on the University's program of General Education and on its major in theology. In order to focus their preparation in accordance with their particular interests and career plans, students will work out their plan of study with their academic advisor in the Department of Theology and with the Program Director for Youth, Family, and Education Ministry.

Program Requirements. The General Education requirements for the Bachelor of Arts degree (see page 44) must be fulfilled. Careful selection of courses will meet the General Education program in Theology (6 credits), in Social Analysis (3 to 6 credits), U.S. Diversity (3 credits), and Global Diversity (3 credits). A total of 54 credits constitute this dual-major program of study. Students should consult with the Chair of the Department of Theology or with the Program Director of the Center for Church Vocations for academic and para-curricular advising.

Students entering this program will fulfill the requirements for a first major in Theology by taking these courses:

Bible

Two courses (THEO 310-319)

Doctrine, Christian Thought

One course (THEO 330 when topics are appropriate), THEO 332, THEO 334 (other courses may be substituted in the case of students from other church bodies)

Theological Ethics

One course (THEO 340-349)

Church Life and Work

Two courses (normally THEO 353 Theology of Religious Education and/or THEO 353 Theology

for Ministry to Youth and Families, or others numbered THEO 350-359)

History of Religions

One course (THEO 360-369)

Seminar

Theology Seminar (THEO 493)

Take an additional 300 or 500 level theology course.

A complementary major in Youth, Family, and Christian Education will be completed with additional nine courses chosen in consultation with the Program Director for Youth, Family, and Education Ministry from among the following:

Communication

COMM 145 Interpersonal Communication 3 Cr.
COMM 243 Public Communication 3 Cr.

Education

ED 204 Educational Psychology 3 Cr.

Psychology

PSY 330 Child and Adolescent Development 3 Cr.
PSY 335 Psychology of Personality 3 Cr.
PSY 355 Environmental Psychology 3 Cr.
PSY 445 Community and Health Psychology 3 Cr.
PSY 461 Introduction to Counseling 3 Cr.

Note: PSY 110 or 110/111 is a prerequisite for all Psychology courses, but may not be counted among the courses for this complementary major.

Social Work

SOCW 151 Introduction to the Profession of Social Work 3 Cr.
SOCW 210 Social Welfare: Policy and Services 3 Cr.
SOCW 220 Human Behavior and Social Environment 3 Cr.
SOCW 330 Vulnerable Populations: Color, Gender, and Orientation 3 Cr.

Sociology

SOC 220 The Family 3 Cr.
SOC 245 Social Psychology 3 Cr.
SOC 250 Principles of Social/Formal Organizations 3 Cr.
SOC 270 Juvenile Delinquency 3 Cr.
SOC 325 Urban Sociology 3 Cr.
SOC 327 Aging in American Society 3 Cr.
SOC 340 Gender 3 Cr.
SOC 347 Race and Ethnic Relations 3 Cr.

SOC 110 is prerequisite for all 300 level sociology courses, but may not be counted among the courses for this complementary major.

Symposium and Para-Curricular Activities. Working in consultation with the academic advisor and Program Director of the Center for Church Vocations, students will arrange each semester to participate in the Church Vocations Symposium (THEO 399), as well as in the Center for Church Vocation's program of formation for ministry, including retreats, a mentoring program, and/or a specially-arranged internship or Practicum in Ministry (THEO 480). A yearlong full-time internship may also be arranged through the Program Director of the Center for Church Vocations, in a parish or church-related service agency; such an internship would usually be scheduled between the student's junior and senior years.

Candidacy and Rostering. Students should consult their Center for Church Vocations advisor as early as possible in their program of study in order to begin the process of candidacy and discernment of vocation with the appropriate church body office.

CHRIST COLLEGE

THE HONORS COLLEGE

Mel Piehl, Ph.D., Dean
Margaret Franson, M.A.L.S., Associate Dean

Professors Bunge, Morgan, Olmsted, Piehl, Schwehn; Associate Professors Buggeln, Murphy; Assistant Professors Huelin, Prough; Lecturer Hoffman.

Christ College is the honors college of Valparaiso University. Established in 1967, Christ College celebrates forty years of providing honors-level liberal arts education that integrates fields of study and that enables 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, or 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 Scholar or Christ College Associate. 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 191-192.

Christ College is dedicated to the cultivation of intellectual, moral, and spiritual virtues. The College's name suggests its compatibility with Valparaiso University's definition of itself as a university in the Christian intellectual tradition.

Christ College endeavors to develop among its members a sense of community: a community of seekers of knowledge and truth, a community within which free inquiry is encouraged and principled commitment is fostered, a community of scholars engaged in preparing themselves for active participation in the larger human community. Much of the curricular structure of Christ College and

many of its co-curricular activities are devoted to developing this sense of community.

Its attractive facilities also encourage community-building. Christ College is located in Mueller Hall, a modern building in the heart of campus where students and faculty interact in seminar-sized classrooms, a 60-seat multimedia lecture hall, a comfortable lounge/art gallery, a multipurpose refectory, and faculty offices.

By developing an academic community that gathers outside as well as inside the classroom, Christ College promotes a particular set of educational virtues and ideals among its members. Among these are direct and personal relationships between students and faculty, a spirit of cooperation and mutual growth through free exchange of ideas, a willingness to challenge and scrutinize ideas and beliefs (including one's own), and a concern for the integration of academic learning into a responsible and meaningful life.

While stressing intellectual excellence and the fullest use of one's own mental gifts, the College also attempts to develop within its members the virtues of modesty and civility, a humble awareness of limitations and failures, and a sense that the more knowledge is gained, the more it is to be used wisely in the service of others. To the extent that these values are actually realized in its members, Christ College considers them prepared for responsible vocations in society and for leadership in the Christian community.

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 extracurricular activities, and a measure of curiosity and creativity are invited by the Dean of Christ College to apply for the honors program. Between 75 and 85 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, either as a freshman or upperclass student, in order to pursue a Scholar or Associate distinction, is designated a *member* of Christ College. Once admitted to membership, a student's status is regularly reviewed by the Dean and faculty to determine whether the student is satisfying the standards appropriate to membership in the Honors College. These requirements include contribution to the common life of the College, satisfactory academic progress toward a degree in one of the undergraduate colleges, and continuing academic achievement consonant with the mission and standards of Christ College.

Even when students are not directly registered in Christ College courses during a given semester, they are expected to contribute to the College's common life. This includes attendance at the Christ College Symposium and regular consultation with a Christ College advisor.

Continuing academic achievement at the honors level includes a) a cumulative grade point average of 3.30 in all coursework completed at the University and b) a cumulative grade point average of 3.30 in all coursework completed in Christ College. Students who fall below these standards at the end of a semester or academic year will be notified by the Dean and reminded that Christ College Associate and Scholar distinctions require a 3.30 cumulative average for work in both Christ College and Valparaiso University.

In some cases students will be asked to meet with their advisor and/or the Dean to discuss their status, and may be counseled not to continue in Christ College.

However, continuing membership in Christ College is not determined solely by particular criteria such as cumulative grade point average or the student's academic record for a particular semester or year. The Dean and faculty consider the complete circumstances and direction of each student's total academic career and role in Christ College, and retain the right to maintain or terminate a student's membership in Christ College in light of these conditions. The final approval for those who graduate with the designations of Christ College Associate and Christ College Scholar is made by the dean upon recommendation of the faculty.

The Dean and faculty take an interest in the total program of every member of Christ College, and seek to enhance the quality of educational experience for each individual student. Accordingly, the Dean may authorize certain variations in the normal academic requirements of a student if such variations seem desirable in the best interests of the student. For example, the Dean may permit a student to carry extra credit hours and to waive certain University requirements if such waivers are justified. Members of the College are normally expected to meet all University requirements for graduation except where such modifications have been explicitly authorized by the Dean. In general, the faculty may tailor a program to meet a student's interests and needs within the general framework and spirit of the University's requirements.

ACADEMIC ADVISING AND APPROVAL OF COURSE SCHEDULES

Advising of students pursuing programs in Christ College is under the general direction of the Associate Dean. Christ College freshmen are usually advised by a member of the Christ College faculty. Sophomores, juniors, and seniors are advised by the Associate Dean, with faculty members available to consult at any time.

Students are encouraged to confer regularly with their Christ College advisors 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 advisor, students have an advisor in the other college in which they are simultaneously enrolled, and are expected to confer regularly with that advisor 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.

Required coursework includes:

CC 110 Texts and Contexts I	8 Cr.
CC 115 Texts and Contexts II	8 Cr.
CC 205 Word and Image	4 Cr.
CC 215 The Christian Tradition	3 Cr.
CC 325 Seminar	4 Cr.
CC 499 Senior Colloquium	1 Cr.
One course selected from:	
CC 255 Interpretation: Self, Culture, and Society	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 375 The Scholar in Society or
 CC 455 Inquiry in the Liberal Arts 3 Cr.
 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 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 Associate designation.

Required coursework includes:

CC 110 Texts and Contexts I 8 Cr.
 CC 115 Texts and Contexts II 8 Cr.
 CC 215 The Christian Tradition 3 Cr.
 CC 499 Senior Colloquium 1 Cr.
 One course selected from:
 CC 205 Word and Image 4 Cr.
 CC 255 Interpretation: Self, Culture, and Society 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 3-4 Cr.
 CC 375 The Scholar in Society or
 CC 455 Inquiry in the Liberal Arts 3 Cr.
 An approved off-campus study program

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 23 credit hours in Christ College courses. Required coursework includes:

CC 255 Interpretation: Self, Culture, and Society 4 Cr.
 Two courses selected from:
 CC 300 or 325 Seminar 3 Cr.
 CC 300 or 325 Seminar 3 Cr.

CC 375 The Scholar in Society or
 CC 455 Inquiry in the Liberal Arts 3 Cr.
 An approved off-campus study program.
 Three CC seminars taken on campus
 CC 300 or 325 Seminar 3 Cr.
 CC 300 or 325 Seminar 3 Cr.
 CC 300 or 325 Seminar 3 Cr.
 CC 325 Seminar 4 Cr.

A course used to fulfill the requirements of a complementary major in humanities may not be used to fulfill the minimum requirements of any other major or minor.

Minor in Humanities. The minor 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 minor in humanities.

The minor in humanities requires a minimum of 17 credit hours in Christ College courses. Required coursework includes:

CC 255 Interpretation: Self, Culture, and Society 4 Cr.
 One course selected from:
 CC 300 or 325 Seminar 3 Cr.
 CC 375 The Scholar in Society 3 Cr.
 CC 455 Inquiry in the Liberal Arts 3 Cr.
 An approved off-campus study program.
 Two CC seminars taken on campus
 CC 300 or 325 Seminar 3 Cr.
 CC 300 or 325 Seminar 3 Cr.
 CC 325 Seminar 4 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.

COURSE OFFERINGS

The Freshman Program

CC 110. Texts and Contexts I: Traditions of Human Thought.
 Cr. 8. Intensive study of great works in religious, philosophical, and literary traditions. The close reading of primary texts is accompanied by a survey of the wider aspects of the historical epoch or milieu appropriate to each text. The course is graded S/U only, though advisory grades (A-F) are given throughout the semester. Prerequisite: membership in Christ College or consent of the Dean.

CC 115. Texts and Contexts II: Traditions of Human Thought.
 Cr. 8. The first seven weeks of this course continues CC 110. In the second seven weeks students choose from seminars on topics relevant to the larger themes of the course. Each student conducts a major investigation of a problem

formulated within the seminar. The course is graded A-F only. Prerequisite: membership in Christ College or consent of the Dean.

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 irresolvable 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, philosophical, and religious texts, with special emphasis on the relationship of these texts to works of art. These classic texts are read, analyzed, and discussed in seminar settings, supplemented by a weekly plenary session devoted to lectures and discussions of visual images. Prerequisites: CC 115 or CORE 115 and membership in Christ College or consent of the Dean.

CC 215. The Christian Tradition.

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 CORE 115 and membership in Christ College or consent of the Dean.

CC 255. Interpretation: Self, Culture, and Society.

Cr. 4. A study of principles of interpretation in the social sciences and relevant classic texts and theories. The course examines some basic interpretive problems using selected areas such as psychology, social theory, literature, anthropology, and history. Prerequisite: CC 115 or CORE 115 and membership in Christ College or consent of the Dean.

CC 270. Interpretation in the Natural Sciences.

Cr. 4. A survey of methodology and the philosophical underpinnings of the natural sciences to achieve better understandings of the scientific enterprise. Scientific projects and oral presentations complement readings, lectures, and discussions. Prerequisite: CC 115 or CORE 115 and membership in Christ College or 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: Justice; Children, the Family, and Faith; Poe and Baudelaire; Freedom; Dostoevsky's World; Consumer Culture; Media and Culture in East Asia; African Politics and Literature; Inventing the Body; Kierkegaard; Drama and the Church; Medical Missions. CC 300 may be repeated with different seminar topics. Prerequisite: membership in Christ College or consent of the Dean.

CC 325. Seminar.

Cr. 3-4. Same as CC 300, except the course may be intensified to 4 credits with the consent of the instructor. A student who takes the course for 4 credits will prepare an honors thesis on some 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. Prerequisite: membership in Christ College or consent of the Dean.

CC 375. The Scholar in Society.

Cr. 3. A seminar designed for students applying for nationally competitive postgraduate scholarships and fellowships such as Fulbright, Marshall, Mitchell, Truman, Rhodes, Rotary Ambassadorial, Jack Kent Cooke, and National Science Foundation Scholarships. The course aims to help students clarify and articulate their anticipated academic study after college; to raise awareness of significant international and domestic issues; and to mentor students as they apply for competitive awards. Open to Christ College members and nonmembers. Junior or senior standing required. A minimum GPA of 3.75 is strongly suggested. Prerequisite: consent of the instructor.

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 CC 110. Prerequisites: CC 110 or CC 115, membership in Christ College, and consent of the Dean.

CC 495. Independent Study Project.

Cr. 1-4. A special independent study project arranged with a member of the faculty. Approval of this project must be obtained from the faculty prior to registration. Forms for this project are available from the Dean's Office. Prerequisite: membership in Christ College and consent of the Dean.

CC 499. Senior Colloquium.

Cr. 1. A capstone, integrative experience for seniors under the direction of Christ College faculty in which students give shape to the substance of their lives through autobiographical narrative, and reflect upon the character and meaning of their future work. Prerequisite: senior standing, membership in Christ College, and consent of the Dean.

COLLEGE OF BUSINESS ADMINISTRATION

Thomas E. Boyt, D.V.M., Ph.D., Dean
Karl E. Reichardt, Ph.D., C.M.A., Associate Dean
Dean M. Schroeder, Ph.D., M.B.A., Associate Dean

Professors Boyt, Jin, Langrehr, Mainstone, McCuddy, Ozgur, D.M. Schroeder, Strasser; Associate Professors Pinar, Pirie, Reichardt, D.L. Schroeder, Stück; Assistant Professors Bai, Gingerich, LeClere, Newsom, Trapp; Lecturers Guydan, Kirkland.

The College of Business Administration offers three degrees: a Bachelor of Science in Accounting; a Bachelor of Science in Business Administration with majors in accounting, finance, information and decision sciences, international business, management, and marketing; and a Masters in Business Administration.

Accreditation. The college's degree programs are fully accredited by AACSB International. 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.

Mission. To provide a holistic learning experience that develops exceptional leaders who are conscientious stewards prepared to meet the challenges of a complex and dynamic global environment.

Clarification of the four main phrases of the mission statement are as follows:

1. "*Provide a holistic learning experience*" means that the College of Business Administration strives to develop the whole person. This involves providing each student with opportunities, both inside and outside the classroom, to develop his or her interpersonal skills, professional competencies, spiritual beliefs, ethical foundation, and cultural awareness and sensitivity.
2. "*Develops exceptional leaders*" means that the College of Business Administration strives to develop authentic individuals who are capable of inspiring others toward a meaningful vision. This involves preparing students

- to be proactive, goal oriented, optimistic, credible, and professionally competent.
3. "*Conscientious stewards*" means that the College of Business Administration strives to provide students with a strong ethical foundation that is grounded in the Lutheran Christian tradition. Stewards are leaders who know they have been entrusted with valuable resources (human, natural and financial), act as responsible global citizens, are accountable to the well-being of the whole organization and operate in service to others.
 4. "*Challenges of a dynamic and complex environment*" means that the College of Business Administration strives, through a faculty engaged in professional development activities, to prepare students to be lifelong learners who are flexible, creative problem solvers capable of dealing with a complex and changing world.

The general education curriculum exposes each student to a broad range of disciplines, problem solving techniques and methods of inquiry. The business curriculum introduces students to concepts, tools of analysis, and techniques of evaluation which further develop skills in problem solving and decision making. These serve as a foundation for their growth into competent and ethically responsible business persons prepared for work in the global environment. The undergraduate education in business is concerned not only with preparation for business careers but with preparation for life in general. As the shared values indicate "We view students as whole persons and strive to prepare them for personal, as well as professional success."

The Major Field. The business core provides 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, finance, information and decision sciences, international business, management, or marketing for the degree in business administration. The requirements for each major are set forth in the curricula described on pages 199-202.

Each of the two undergraduate degrees requires that the students devote at least one-half of their time to required and elective courses outside the College of Business Administration. Students often select nonbusiness elective courses in those areas which provide support to their professional program.

Minor in Business Administration. The College offers this minor for nonbusiness students who desire a more advanced preparation in business than is provided by the Liberal Arts Business Minor. For more information and the requirements of these two minors, see page 235 for the Minor in Business Administration and page 239 for the Liberal Arts Business Minor.

Credit by Examination. Credit through the College Level Examination Program (CLEP) can be earned for the following courses:

- For ACC 205 with the subject examination in Financial Accounting.
- For BLAW 104 with the subject examination in Introductory Business Law.
- For IDS 410 with the subject examination in Information Systems and Computer Applications.
- For non-business majors only: MGT 304 with the subject examination Principles of Management.
- For non-business majors only: MKT 304 with the subject examination 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 201), or in Manufacturing Management, (see page 239), or in Applied Statistics (see page 235). In addition, business students may pursue one of the two minors in the Reserve Officer Training Core – Military Leadership: Air Force Minor or Military Leadership: Army Minor (see pages 243-245).

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 except for interdisciplinary minors, the minor in mathematics and the minor in computer science where three courses may be used to simultaneously satisfy the requirements of the major and the 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 advisor 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 191-192).

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 major, unless the course is required for both majors or the course fulfills the international business requirement for each major. There cannot, however, be any more than a seven credit overlap between the two majors.

Double Degree. Students may earn double degrees by earning 30 credits and 60 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. None of the additional 30 credits for the second degree may be used to fulfill requirements for the first degree.

Assessment Center. The CBA Assessment Center evaluates student performance on realistic business tasks. Assessors observe students in simulations such as role plays, oral presentations and group decision making, and offer immediate feedback to the students. Skills assessed might focus on the student's problem solving, communication, leadership, teamwork, and interpersonal abilities. Students may use their assessment results

to evaluate their strengths and to identify areas for improvement. The College may use the assessment results to evaluate and improve its curriculum. The increased importance of behavioral skills in the workplace emphasizes the necessity of being able to assess these skills in our students. The College of Business Administration offers the Assessment Center each academic year and requires all students to participate in the Assessment Center activities during each of their Sophomore and Junior years.

Students who transfer in 56 or more credit hours from other universities receive a waiver for the Sophomore Assessment Center (MGT 200), but are still required to participate in the Senior Assessment Center (MGT 400).

Cooperative Education. Cooperative Education in the College of Business Administration is a program in which students combine full-time professional, paid work experience with academic coursework. Employment may occur in a business, not-for-profit, or government setting. Each student is required to complete a Cooperative Education (or Internship; see following section) experience during their junior or senior year. The following policies govern Cooperative Education within the College of Business Administration:

1. A student may participate in Cooperative Education after achieving junior standing with a minimum cumulative grade point average of 2.00.
2. A student works under the advisement of the CBA's Internship and Assessment Center Coordinator, in consultation with a faculty member (usually the student's faculty advisor), who monitors the work experience, evaluates the required written journal and oral presentation, and assigns the course grade taking into account the employer's evaluation of the co-op student.
3. Placements require prior approval of both the CBA Internship and Assessment Center Coordinator and the Director of the Career Center. Interested students should meet with the Coordinator early in their academic careers.
4. A student registers for two credits for each co-op experience.
5. Retroactive credit will not be granted.

Internships. Internships enable students to apply concepts and skills learned in their business courses to situations encountered in actual organizational settings. Each student is required to complete an Internship (or Cooperative Education; see previous section) experience during their junior or senior year. The following policies govern Internships within the College of Business Administration:

1. A student may participate in Internships after achieving junior standing with a minimum cumulative grade point average of 2.00.
2. A student works under the advisement of the CBA's Internship and Assessment Center Coordinator, in consultation with a faculty member (usually the student's faculty advisor), who monitors the work experience, evaluates the required written journal and oral presentation, and assigns the course grade taking into account the employer's evaluation of the interning student.
3. Placements require the prior approval of the CBA Internship and Assessment Center Coordinator. Students should meet with the Coordinator early in their academic careers.
4. Internships may be paid or unpaid work experiences.
5. A minimum of 100 hours of work experience during each internship placement is required to receive academic credit for the internship. A student registers for a total of two credits for each internship placement.
6. Retroactive credit will not be granted.
7. MGT 395 must be completed within four terms (including summer terms) of completion of MGT 394.
8. MGT 396 must be completed no later than the term following completion of MGT 395.

Admission. The general requirements for admission to the University and to the College are found on pages 254-255 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 255 regarding theology requirements and to page 11 for the First Year Core requirement.

Transfer students who have completed business courses do not automatically receive transfer credit. Evaluation of such credit is made by the Dean. Any course work completed at other colleges or universities with a grade lower than C- does not transfer. At least fifty percent of the business credit hours required for the business degree must be taken at Valparaiso University.

Progression Standards. The College of Business Administration requires each student to maintain a minimum university cumulative grade point average of 2.00, a minimum business cumulative grade point average of 2.00, and a minimum major cumulative grade point average of 2.00. Courses to be included in the business grade point average are those identified with the prefix ACC, BLAW, FIN, IDS, MGT, or MKT. Courses to be included in the major grade point average are those specifically identified under the Major.

1. A student shall receive a Letter of Academic Deficiency at the end of the first semester in which he or she has a grade point average of less than 2.00 in either overall cumulative, business cumulative, or major cumulative.
2. A student shall be placed on College probation if he or she had a grade point average of less than 2.00 in either overall cumulative, business cumulative or major cumulative and the student has received a Letter of Academic Deficiency within the last two regular semesters.
3. A student shall be suspended from the College for at least one semester if he or she has a grade point average of less than 2.00 in overall cumulative, business cumulative, or major cumulative and the student has been placed on probation within the last two regular semesters.
4. A suspended student will not be allowed to enroll in courses within the College except repeated courses to raise the business and/or major grade point average(s), provided he or she meets the course prerequisites. A suspended student must wait a minimum of one semester to apply for readmission to the College of Business Administration. In order to be readmitted to the College after suspension, the student must have a

minimum University cumulative grade point average of 2.00, a minimum business cumulative grade point average of 2.00, and a minimum major cumulative grade point average of 2.00. A student suspended from the College of Business Administration may apply for admission to another college within the University. A copy of all deficiency, probation, and suspension letters shall be placed in the student's folder and a copy given to his or her advisor.

5. If a student's overall cumulative grade point average falls below 1.00 during any semester, the Dean of the College of Business Administration will evaluate the student's situation to determine if the student should continue in the College (under deficiency or probation) or be suspended immediately.

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 grade point requirements stated above and must meet all additional requirements for graduation established by the University (see pages 266-268 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 S/U basis. This option is permitted in all nonbusiness courses except MATH 122 and 124, ECON 221, 222, and 223, PSY 110 and 111, and any nonbusiness course used in the International Business and Global Studies, Manufacturing Management, or Applied Statistics minors. See page 262 for a complete explanation of the S/U grading option.

Course Intensification Option. Any junior or senior student in good standing with a business grade point average of 2.70 or above may enhance one course in the major or a major field requirement for 1 additional credit. The general procedures for filing for course intensification are found on page 263.

Advisement. Advisement of students admitted to the College is under the direction of the Coordinator of Advising, 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.

Delta Epsilon Chi. This international membership organization is for college students preparing for a variety of career areas. The local chapters on college campuses are a division of DECA Inc., an association of marketing students. The organization provides a natural outlet for leadership, competition, career development, and community service. The activities promoted by this organization assist in integrating and enhancing the student's classroom instruction, as well as provide close ties with the business community leading to networking opportunities and an appreciation for free enterprise.

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.

HONOR SOCIETIES

Beta Gamma Sigma. National honor society which recognizes outstanding academic achievements of students in AACSB accredited business programs. The upper 10 percent of the senior class and the upper seven percent of the junior class are invited into its membership. Members are entitled to wear blue and gold honor cords at commencement.

Accounting Honor Society.
Recognizes members of the Accounting Society who have excelled in the study of accounting.

Decision Sciences and Information Systems Honor Society--Alpha Iota Delta. Sponsored by the Decision Science Institute to recognize academic excellence in the field of decision sciences and information systems.

COURSES COMMON TO BOTH DEGREE PROGRAMS IN THE COLLEGE OF BUSINESS ADMINISTRATION

The College of Business Administration offers two undergraduate degrees--the Bachelor of Science in Accounting and the Bachelor of Science in Business Administration. In addition, the College offers several graduate programs including the Master of Business Administration (MBA) and a Management Certificate Program; a dual JD/MBA degree (with the Valparaiso University School of Law); a Master of Engineering Management (with the College of Engineering); and a Master of Science Nursing/MBA (with the College of Nursing; and Management Certificate Programs for Nursing and Psychology. Graduate programs are described in the Valparaiso University Graduate Catalog.

The following courses are common requirements for the two undergraduate degrees--the B.S. in Accounting and the B.S. in Business Administration. Courses specifically required for each of these two undergraduate degree programs are listed under the respective degree descriptions following the General Education and Business Core requirements.

GENERAL EDUCATION

Freshman Core Program	10 Cr.
CORE 110 The Human Experience	5 Cr.
CORE 115 The Human Experience	5 Cr.
Theology	6 Cr.
THEO 200 The Christian Tradition	3 Cr.
THEO Upper Level THEO course (300-400)	3 Cr.
Cultural Diversity	11 Cr.
Foreign Language	8 Cr.
A. Courses numbered 102 and 203 in a foreign language in which the student has more than one year of high school credit, or	
B. Courses numbered 101 and 102 in a foreign language which the student has not taken before; or	
C. For nonimmigrant visa international students whose native language is not English, there is no foreign language requirement providing they have completed ENGL 101: English for International Students	

Cultural Diversity course	3 Cr.
A. Three-credit course from a specified list of approved diversity courses; or	
B. Semester abroad in one of the International Study Programs, the Chicago Urban Studies Semester, or either of the Washington Semester Programs.	
Humanities course	3 Cr.
Choose one of:	
A. Fine and Performing Arts course	
B. History course	
C. Literature course	
D. Philosophy course (except PHIL 150)	
Social Science course	3 Cr.
Choose one three-credit course from geography (designated), political science, social work (designated), sociology, or gender studies (Note 6)	
Natural Science course	7-8 Cr.
PSY 110 General Psychology	3 Cr.
PSY 111 General Experimental Psych Lab	1 Cr.
At least three credits with a laboratory component from astronomy, biology, chemistry, physical geography, meteorology, physics, or natural science	3-4 Cr.
Quantitative Analysis	4 Cr.
MATH 124 Finite Mathematics	
PE 100 Healthy Lifestyles	1 Cr.
MATH 122 Intuitive Calculus (Note 5)	4 Cr.
ECON 221 Economics - Micro	3 Cr.
ECON 222 Economics - Macro or	
ECON 223 Economics - International	3 Cr.
ENGL 300 Introduction to Professional Writing	3 Cr.
Total	58-59 Cr.
Nonbusiness Electives (Note 1)	0-8 Cr.
Total General Education	58-66 Cr.

BUSINESS CORE

Freshman/Sophomore Core Courses	
BLAW 104 Legal Environment of Business	3 Cr.
MGT 200 Assessment Center	0 Cr.
ACC 205 Financial Accounting	3 Cr.
ACC 206 Managerial Accounting	3 Cr.
IDS 205 Business Statistics	3 Cr.
Total	12 Cr.
Junior/Senior Core Courses	
FIN 304 Financial Management	3 Cr.
MGT 304 Management and Organizational Behavior	3 Cr.
MKT 304 Marketing Management	3 Cr.
IDS 305 Production-Operations Management	3 Cr.
IDS 410 Management Information Systems	3 Cr.
MGT 394 Business Internship Orientation	0.5 Cr.
MGT 395 Internship Experience in Business Administration I	0.5 Cr.
MGT 396 Business Internship Report	1 Cr.
or	
MGT 381 Cooperative Education in Business Administration I	2 Cr.
MGT 400 Assessment Center	0 Cr.
MGT 475 Business Policy and Strategy	3 Cr.
Total	20 Cr.
Total Business Core	32 Cr.

Notes:

1. Nonbusiness electives apply only to the B.S. in Accounting degree and depend upon whether the student takes a 3 or 4 credit natural science course (with lab). If a student takes a 3-credit

- natural science with lab, then the student has 8 credits of nonbusiness electives; if a student take a 4-credit natural science with lab, then the student has 7 credits of nonbusiness electives. There are no nonbusiness electives in the B.S.B.A. degree (majors of Accounting, Finance, Information and Decision Sciences, International Business, Management, and Marketing).
2. Free electives for the B.S. in Accounting degree are 7 credits. The free electives in the B.S.B.A. degree for the majors of Accounting, Finance, Information and Decision Sciences, International Business, Management, and Marketing vary depending upon whether the student takes a 3 or 4 credit natural science course (with lab). If a student takes a 3 credit natural science with lab, then the student has the greater value for free electives; if a student takes a 4 credit natural science with lab, then the student has the lesser value for free electives. The free electives by majors are Accounting: 7 or 8 credits, Finance: 8 or 9 credits; Information and Decision Sciences: 7 or 8 credits; International Business: 4 or 5 credits; Management: 7 or 8 credits; Marketing: 10 or 11 credits.
 3. No more than six credits combined from performance music, ensemble music, and PE 100-149 may be applied toward a degree.; one credit is applied directly to PE 100, up to three credit can be applied toward the Humanities Fine and Performing Arts, and any excess credits are applied as free electives.
 4. No more than six credits from cooperative education and/or internship may be applied toward the degree; two credits are applied directly to cooperative education and/or internship requirement and any excess credits are applied as free electives.
 5. MATH 131 or 151 may be substituted in lieu of MATH 122, and MATH 132 or 152 may be substituted in lieu of MATH 124.
 6. Courses in economics do not satisfy the social science requirement in the College of Business Administration.

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 a requirement or are adding one, including Indiana, Illinois, and Wisconsin. The degree incorporates a substantial number of elective courses which make it possible for a student to enrich and broaden their business studies by taking advantage of other degree and program opportunities.

MAJOR REQUIREMENTS

Communication Requirements	
COMM 145 Interpersonal Communication	3 Cr.
Liberal Arts Elective with Extensive Writing Requirement	3 Cr.
Total	6 Cr.
Accounting Course Requirements	
IDS 110 Business Spreadsheet Applications	1 Cr.
ACC 210 Introductory Accounting Lab	1 Cr.
ACC 301 Seminar in the Accounting Profession I	0.5 Cr.
ACC 302 Seminar in the Accounting Profession II	0.5 Cr.
ACC 310 Intermediate Financial Accounting I	3 Cr.
ACC 311 Intermediate Financial Accounting II	3 Cr.
ACC 315 Accounting Information Systems	3 Cr.
ACC 316 Governmental and Not-For-Profit Accounting	3 Cr.
ACC 320 Cost Accounting	3 Cr.
ACC 350 Concepts of Tax Accounting	3 Cr.
ACC 411 Advanced Accounting	3 Cr.
ACC 413 Auditing and Assurance Services	3 Cr.
BLAW 404 Business Law	3 Cr.
International Business Requirement	3 Cr.
Choose one of:	
FIN 430 International Finance	
IDS 430 Global Operations and Supply-Chain Management	
MGT 440 Cross-Cultural Management	
MKT 430 International Marketing	
Accounting Elective	3 Cr.
Total	36 Cr.
Major Field Requirement	3 Cr.
Select one non-core business course numbered above 300.	
Free electives (Notes 2, 3, and 4)	7 Cr.
Grand Total	150 Cr.

BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION

Students who choose the Business Administration degree may select from six majors: Accounting, Finance, Information and Decision Sciences, International Business, Management, or Marketing.

ACCOUNTING MAJOR	
IDS 110 Business Spreadsheet Applications	1 Cr.
ACC 210 Introductory Accounting Lab	1 Cr.
ACC 301 Seminar in the Accounting Profession I	0.5 Cr.
ACC 302 Seminar in the Accounting Profession II	0.5 Cr.
ACC 310 Intermediate Financial Accounting I	3 Cr.
ACC 311 Intermediate Financial Accounting II	3 Cr.
ACC 315 Accounting Information Systems	3 Cr.
ACC 320 Cost Accounting	3 Cr.
ACC 350 Concepts of Tax Accounting	3 Cr.
International Business Requirement	3 Cr.
Choose one of:	
FIN 430 International Finance	
IDS 430 Global Operations and Supply-Chain Management	
MGT 440 Cross-Cultural Management	
MKT 430 International Marketing	
Total	21 Cr.

Major field requirement	6 Cr.
Select two non-core business courses numbered above 300.	
Free Electives (Notes 2, 3, and 4)	7-8 Cr.
Grand Total	125 Cr.

FINANCE MAJOR

ACC 210 Introductory Accounting Lab	1 Cr.
IDS 110 Business Spreadsheet Applications	1 Cr.
IDS 340 Statistics for Decision Making	3 Cr.
FIN 330 Management of Financial Institutions	3 Cr.
FIN 410 Theory of Corporate Finance	3 Cr.
FIN 420 Investment Management	3 Cr.
International Business Requirement	3 Cr.
FIN 430 International Finance	
FIN 470 Financial Strategy and Policy	3 Cr.
Total	20 Cr.
Major field requirement	6 Cr.
Select two non-core business courses numbered above 300.	
Free electives (Notes 2, 3 and 4)	8-9 Cr.
Grand Total	125 Cr.

INFORMATION AND DECISION SCIENCES MAJOR

CS 128 Introduction to Programming	1 Cr.
IDS 110 Business Spreadsheet Applications	1 Cr.
IDS 111 Business Applications Programming	1 Cr.
IDS 310 E-Commerce and E-Business Technology or	
MKT 310 Marketing Research	3 Cr.
IDS 320 Management Science	3 Cr.
IDS 340 Statistics for Decision Making	3 Cr.
IDS 420 Database Management and Decision Support Systems	3 Cr.
International Business Requirement	3 Cr.
IDS 430 Global Operations and Supply- Chain Management	
IDS 493 Seminar in Applied Statistics	3 Cr.
Total	21 Cr.
Major field requirement	6 Cr.
Select two non-core business courses numbered above 300.	
Free Electives (Notes 2, 3, and 4)	7-8 Cr.
Grand Total	125 Cr.

INTERNATIONAL BUSINESS MAJOR

FIN 430 International Finance	3 Cr.
IDS 430 Global Operations and Supply-Chain Management	3 Cr.
MGT 440 Cross-Cultural Management	3 Cr.
MKT 430 International Marketing	3 Cr.
ECON 326 International Economics or ECON 336 Economics of Developing Nations	3 Cr.
MGT 471 International Business Environment and Global Strategy	3 Cr.
Total	18 Cr.
Major field requirement	6 Cr.
Select two non-core business courses numbered above 300. A 300-level international economics course, not previously taken to meet the International Business requirements, may be selected to fulfill one of the two major field requirements.	
Modern Foreign Language: 203 or higher	6 Cr.
or for international students with English as a second language, TOEFL scores that satisfy University standards	

or for students with English as a second language, completion of a proficiency test in an approved modern foreign language	
Free electives (Notes 2, 3, and 4)	4-5 Cr.
Grand Total	125 Cr.

An international study semester is required unless the student has had a minimum of six consecutive months of non-U.S./Canada residency after fourteen years of age.

MANAGEMENT MAJOR

MGT 310 Managing Human Resources	3 Cr.
MGT 315 Leadership and Interpersonal Skills	3 Cr.
MGT 425 Managing Technology and Change	3 Cr.
International Business Requirement	3 Cr.
MGT 440 Cross-Cultural Management	
MGT 460 Ethics in Business	3 Cr.
MGT 470 High Performance Organizations	3 Cr.
Total	18 Cr.
Major field requirement	9 Cr.
Select three non-core business courses numbered above 300.	
Free electives (Notes 2, 3, and 4)	7-8 Cr.
Grand Total	125 Cr.

MARKETING MAJOR

IDS 340 Statistics for Decision Making	3 Cr.
MKT 310 Marketing Research	3 Cr.
MKT 320 Sales Management	3 Cr.
MKT 330 Buyer Behavior	3 Cr.
International Business Requirement	3 Cr.
MKT 430 International Marketing	
MKT 470 Marketing Strategy and Policy	3 Cr.
Total	18 Cr.
Major field requirement	6 Cr.
Select two non-core business courses numbered above 300.	
Free electives (Notes 2, 3, and 4)	10-11 Cr.
Grand Total	125 Cr.

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. However, this minor is not available to International Business majors in the Bachelor of Science in Business Administration degree. It provides the opportunity for students to focus on the interdependent global environment in which business is conducted. 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. However, the maximum hours can be reduced in this minor by applying up to a two-course overlap with other requirements within general education, a major or a minor. In addition, students who complete the International Study Abroad Track within the International Elective Track will have the requirements reduced by six credit hours by studying abroad. In any case, there may not be more than a total of a two course overlap in this minor with other requirements, whether within general education or within a major or minor.

Required Core Courses

Complete any three from the following five international business courses.

FIN 430 International Finance	3 Cr.
IDS 430 Global Operations and Supply-Chain Management	3 Cr.
MGT 440 Cross-Cultural Management	3 Cr.
MGT 471 International Business Environment and Global Strategy	3 Cr.
MKT 430 International Marketing	3 Cr.
Total	9 Cr.

Modern Foreign Language Requirement

Choose one of the following language sequences:

East Asian Region	
FLJ 102 and 203 or	8 Cr.
FLC 102 and 203 or	8 Cr.
EAST 109 and 110	10 Cr.
European Region	
FLF 203 and 204 or	8 Cr.
FLGR 203 and 204 or	8 Cr.
FLS 203 and 204	8 Cr.
Latin American Region	
FLS 203 and 204	8 Cr.

General International Track
Select two courses from any of the single-language sequences listed above.

International Elective Tracks

Choose one of the following five tracks:

East Asian Region	6 Cr.
Choose two of the following courses: GEO 301: Asia regional course, HIST 240, 341, 342, THEO 363.	
European Region	6 Cr.
Choose two of the following courses: GEO 301: Europe regional course, HIST 313, 315.	
Latin American Region	6 Cr.
Choose two of the following courses: GEO 301: Latin America regional course, HIST 232, 331.	
General International Track	6 Cr.
Choose one course from two different groups:	
1. GEO 101 or 102	
2. HIST 210	
3. POLS 130 or 230	
4. POLS 330 or 335.	

International Study Abroad Track 0 Cr.
Attendance at an approved Valparaiso University international study program, or an alternative international study program approved by the Administrative Committee.

COURSE DESCRIPTIONS

In order to enroll in CBA courses numbered above 304, a student must have junior standing.

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. Prerequisites: MATH 110 or placement higher than MATH 110 on the math placement examination, and sophomore standing or permission of the area coordinator for accounting majors.

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, decision analysis, 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. S/U grade.

ACC 290/390/490. Topics in Accounting.
Cr. 1-3. A detailed examination of selected topics pertinent to the field of accounting to be offered when sufficient interest and staffing are available. Prerequisites will vary, depending on topics being covered.

ACC 301. Seminar in the Accounting Profession I.
Cr. 0.5. An exploration of important professional accounting issues that are not covered in traditional accounting courses. The course relies on case studies, presentations and discussions conducted by practicing professional accountants as well as various faculty members. Prerequisite: ACC 205. S/U grade.

ACC 302. Seminar in the Accounting Profession II.
Cr. 0.5. Continuation of ACC 301. Prerequisite: ACC 301. S/U grade.

ACC 310. Intermediate Financial Accounting I.
Cr. 3. A study of the theoretical foundations underlying financial reporting, revenue recognition, the matching of expenses, and financial statement presentation, with a focus on asset measurement and income determination. Prerequisites: BLAW 104, ECON 221, ECON 222

- or 223, IDS 205, ACC 206, and completion or concurrent enrollment in ACC 210, IDS 110, and FIN 304.
- ACC 311. Intermediate Financial Accounting II.**
Cr. 3. A study of the theoretical foundations underlying financial reporting, revenue recognition, the matching of expenses, and financial statement presentation, with a focus on liability valuation, stockholders' equity, and selected financial reporting topics. Prerequisite: ACC 310.
- ACC 315/MBA 715. Accounting Information Systems.**
Cr. 3. A study of the use, evaluation, and design of accounting information systems. Prerequisites: BLAW 104, ECON 221, ECON 222 or 223, IDS 205, ACC 206, and completion of or concurrent enrollment in ACC 210 and IDS 110.
- ACC 316/MBA 716. Governmental and Not-For-Profit Accounting.**
Cr. 3. This course provides a focus on accounting systems and processes unique to noncommercial enterprises. Emphasis is placed on accounting, reporting, and analysis of organizations whose primary purpose is to provide services. The course addresses the changing financial reporting environment in the non-for-profit sector of business as well as in government. Attention is given to issues both in external financial reporting and in managerial accounting analysis. Prerequisite: ACC 310.
- ACC 320. Cost Accounting.**
Cr. 3. A study of the techniques used to accumulate, measure, plan, and control the costs of an organization's products and services. Prerequisites: BLAW 104, ECON 221, ECON 222 or 223, IDS 205, ACC 206, and completion of or concurrent enrollment in ACC 210 and IDS 110.
- ACC 350. Concepts of Tax Accounting.**
Cr. 3. A study of various taxation bases, methods of taxation, and the purpose of taxation. The goal of the course is to provide the student with concepts of taxation so that the effect on management decisions may be understood. Primary emphasis will focus on business entities at the federal level. Prerequisite: ACC 205.
- ACC 411/MBA 711. Advanced Accounting.**
Cr. 3. A study of generally accepted accounting principles as applied to partnerships, corporate consolidations, and international operations. Prerequisite: ACC 311.
- ACC 412/MBA 712. Tax Research.**
Cr. 3. An exploration of the concepts of taxation by providing opportunities to investigate the effects of taxation on the various entities (corporations, partnerships, trusts, and individuals). The emphasis will center on the concept of complete taxation planning involving long-range and short-range effects of management decisions. Prerequisite: ACC 350.
- ACC 413/MBA 713. Auditing and Assurance Services.**
Cr. 3. A study of the independent accountant's assurance, attestation, and audit services. Topics include risk, evidence, standards, control, reports, liability, ethics, and the effect of regulation. Prerequisites: ACC 311 and ACC 315.
- ACC 495. Independent Study in Accounting.**
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. Prerequisite: approved research proposal and permission of the Dean.
- BUSINESS LAW**
- BLAW 104. 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: completion of 12 credit hours.
- BLAW 404. Business Law.**
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. Prerequisites: junior standing and BLAW 104.
- 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. 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, financial statement analysis and forecasting, leverage, working capital management, assessment of risk, the time value of money, valuation of securities, and capital budgeting. Consideration is given to these topics as well as to ethical relationships among the firm's contract holders. Prerequisites: ACC 205, ECON 221 and completion of at least 48 credit hours.

FIN 330. Management of Financial Institutions.
Cr. 3. A study of management techniques of financial institutions in the context of their role in the US financial system. The primary objective of this course is learning to measure and manage risk within financial institutions. Prerequisites: FIN 304, and IDS 110 or CS 157.

FIN 410. Theory of Corporate Finance.
Cr. 3. A study of the theory of corporate finance with emphasis on analytic and quantitative problem solving. Topics covered include risk measurement and management, the cost of capital, capital budgeting, capital structure and dividend policy, and valuation theory. Spreadsheets will be employed where applicable. Prerequisites: FIN 304, either IDS 110 or CS 157, and completion of or concurrent enrollment in IDS/MATH 340.

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. Prerequisites: FIN 304, and IDS 110 or CS 157.

FIN 425. Financial Derivatives.
Cr. 3. This course develops an understanding of the use of options, futures, swaps and other derivative financial instruments. In addition to a discussion of the basic valuation models, the use of derivatives in risk reduction strategies is extensively developed. Prerequisite: FIN 420.

FIN 430. International Finance.
Cr. 3. An introduction to the functioning and management of the firm in international markets. An emphasis is on the multinational firm but increasing globalization makes international finance of concern to virtually every business operation. Coverage includes the international financial environment, and the measurement and management of risk exposure, particularly foreign exchange exposure, arising during international operations and trade. In addition, financing and investing decisions are considered in the international context. Prerequisite: FIN 304.

FIN 470. Financial Strategy and Policy.
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. Students will have the opportunity to develop and enhance their financial skills through reading articles drawn from the finance literature and through the analysis of case studies allowing students to integrate the skills and knowledge developed in earlier business courses. Prerequisites: FIN 410 and IDS/MATH 340.

FIN 495. 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.

INFORMATION AND DECISION SCIENCES

IDS 110. Business Spreadsheet Applications.
Cr. 1. An introduction to using spreadsheets as decision support system generators in order to create specific applications such as templates and what-if scenarios. Emphasis is on user interface, macro development, and forms coupled with business functions. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement exam.

IDS 111. Business Applications Programming.
Cr. 1. An introduction to programming business applications using spreadsheets and application development languages. Emphasis is upon structured programming using sequence, selection, and iteration constructs in an object-oriented environment. Prerequisite: IDS 110 or CS 157.

IDS 205. Business Statistics.
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, and tests of hypotheses. Prerequisite: MATH 122 or 124 or 131 or 151.

IDS 290/390/490. Topics in Information and Decision Sciences.
Cr. 1-3. A detailed examination of selected topics pertinent to the field of information and decision sciences to be offered when sufficient interest and staffing are available. Prerequisites will vary depending on topics being covered.

IDS 305. Production-Operations Management.
Cr. 3. A study of operations of manufacturing and service organizations and the corresponding requirements placed upon management. Content includes forecasting, regression, inventory management, MRP, capacity planning, transportation, facility location and layout, quality, reliability, project management, and scheduling. It includes the use of management science techniques and computer applications in the decision making process. Prerequisites: one of MATH 122, 131, 151 and one of MATH 124, 132, 152; and completion of or concurrent enrollment in IDS 205 or MATH 234 or MATH 264.

IDS 310. E-Commerce and E-Business Technology.
Cr. 3. (Also offered as CS 210 and LS 570.) This course offers an overview of potentials, policies, politics, possibilities, and pitfalls of the e-

business technologies of intranets, extranets, enterprise resource planning, electronic commerce (conducting business online) and electronic business (using information technology to manage the supply-chain), including hardware and software applications required for both. Prerequisite: junior standing.

IDS 320. Management Science.

Cr. 3. A study of fundamentals of management science techniques in decision-making process. The emphasis is on model building, problem formulation and solution using linear programming, transportation, multi-criteria and network flow models, queuing theory, simulation, dynamic programming, and Markov processes. Prerequisites: MATH 122 or 131 or 151, and IDS 205 or MATH 234 or 240 or 264.

IDS 340. Statistics for Decision Making.

Cr. 3. (Also offered as MATH 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, and nonparametric methods. Prerequisite: IDS 205 or MATH 240 or CE 202 or completion of or concurrent enrollment in ECE 465.

IDS 410. Management Information Systems.

Cr. 3. Study of the concepts and application of information systems to managerial decision making. It includes topics such as systems theory, data base concepts, data analysis and management, managerial interfaces and control. Prerequisites: IDS 205 and completion of or concurrent enrollment in FIN 304, IDS 305, MGT 304, MKT 304.

IDS 420. Database Management and Decision Support Systems.

Cr. 3. Study of computer-based information systems that offer data, decision, and executive support for management decision making. It includes topics such as developing and building database management systems, decision support systems, and expert system; various methods of knowledge acquisition and representation; methods of inference, including forward and backward chaining, as they relate to business oriented systems; and the user interface. Prerequisites: IDS 205 or MATH 240.

IDS 430. Global Operations and Supply-Chain Management.

Cr. 3. This course examines issues and methods for effectively managing global operations and supply chain. Topics include the role of operations in global business strategy, supply chain optimization, advantages and disadvantages of different types of operations around the world. The course also covers location and coordination of international facilities, developing and maintaining an effective global supply chain, the role of e-commerce,

outsourcing, data mining, transportation, ERP and ISO in a global environment. Prerequisites: IDS 205 or MATH 234 or MATH 240 and completion of or concurrent enrollment in IDS 305.

IDS 493. Seminar in Applied Statistics.

Cr. 3. (Also offered as ECON 493 and MATH 493.) An intensive study of selected topics, methods, techniques, and problems in applied statistics. Prerequisite: IDS 340 or ECON 325.

IDS 495. Independent Study in Information and Decision Sciences.

Cr. 1-3. An independent research effort that 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 100. Introduction to Contemporary Business.

Cr. 3. An overview of the dynamic world of global business, its basic functions and management tools. This interactive course introduces students to business decision-making in an integrative context and discusses the contemporary issues facing business people. This course is not open to College of Business Administration students who have completed 48 or more credit hours.

MGT 200. Sophomore Assessment Center.

Cr. 0. This course involves approximately one-half day of assessment activities. During the Assessment Center, students complete a series of exercises, aimed at evaluating their skill level on a variety of behavioral dimensions (e.g., communication, teamwork, problem-solving skills). During most exercises, trained assessors from the business community observe the students. The assessors provide immediate verbal feedback and complete written evaluation forms, which the students receive subsequent to the completion of the assessment center. Offered in the fall term. Prerequisite: sophomore standing. S/U grade.

MGT 190/290/390/490. 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. 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: ACC 205, ECON 221, and completion of at least 48 credit hours.

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. Prerequisite: completion of or concurrent enrollment in MGT 304.

MGT 315. Leadership and Interpersonal Skills.

Cr. 3. Describes the natures, dynamics, and parameters of various leadership approaches, with emphasis being placed on contemporary models of leadership. Also 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. Prerequisite: MGT 304.

MGT 320. Small Business Management and Entrepreneurship.

Cr. 3. The study and the 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.

MGT 381. Cooperative Education in Business Administration I.

Cr. 2. The first of two sequential full-time paid work experiences in which students apply their business knowledge, skills, and abilities in an actual organizational setting. This course requires a satisfactory supervisor evaluation and submission of a final written report in approved form. Prerequisites: junior standing and approval of both the CBA Internship and Assessment Center Coordinator and the Director of the Career Center. S/U grade.

MGT 382. Cooperative Education in Business Administration II.

Cr. 2. The second of two sequential full-time, paid work experiences in which students apply their business knowledge, skills, and abilities in an actual organizational setting. This course requires a satisfactory supervisor evaluation and submission of a final written report in approved form. Prerequisites: completion of MGT 381 and approval of both the CBA Internship and Assessment Center Coordinator and the Director of the Career Center. S/U grade.

MGT 394. Business Internship Orientation.

Cr. 0.5. Focus is on preparing students for internships and future careers in business. Upon completion of this course, students will secure an internship and have the internship and related job description approved. In addition, students will learn about the internship requirements, including preparation of the journal, presentation, cover letter and resume. Prerequisite: completion of at least 45 credit hours. S/U grade. Recommended for fall semester of junior year.

MGT 395. Internship Experience in Business Administration I.

Cr. 0.5. Students apply their business knowledge, skills and abilities in an actual organizational setting. Students keep a journal regarding their job experience while serving as an intern. Registration is in the semester of the actual work experience. Prerequisites: junior standing and completion of or concurrent enrollment in MGT 394. S/U grade.

MGT 396. Business Internship Report.

Cr. 1. Students submit a journal and make an oral presentation regarding their internship experience. This course requires an evaluation from the employer and the internship coordinator. Prerequisites: completion of or concurrent enrollment in MGT 394 and MGT 395. S/U grade.

MGT 397. Internship in Business Administration II.

Cr. 2. Second work experience in which students apply their business knowledge, skills, and abilities in an actual organizational setting. This course requires an approved job description, an evaluation from the employer and the internship coordinator, and submission of a final written report. Registration is in the semester of the actual work experience. Prerequisite: completion of MGT 396. S/U grade.

MGT 398. Internship in Business Administration III.

Cr. 2. Third work experience in which students apply their business knowledge, skills, and abilities in an actual organizational setting. This course requires an approved job description, an evaluation from the employer and the internship coordinator, and a final written report. Registration is in the semester of the actual work experience. Prerequisite: completion of MGT 397. S/U grade.

MGT 400. Senior Assessment Center.

Cr. 0. This course involves approximately one-half day of assessment activities building on the exercises in MGT 200. During this Assessment Center, students complete a series of exercises, aimed at evaluating their skill level on a variety of

behavioral dimensions (e.g., communication, teamwork, problem-solving skills). During most exercises, trained assessors from the business community observe the students. The assessors provide immediate verbal feedback and complete written evaluation forms, which the students receive subsequent to the completion of the assessment center. Offered in the spring term. Prerequisite: senior standing. S/U grade.

MGT 425. Managing Technology and Change.
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. Prerequisites: MGT 304 and senior standing.

MGT 440. Cross-Cultural Management.
Cr. 3. (Also offered as ICP 620.) This course focuses on the effect of national cultural value differences on the workplace. Leading empirical cross-cultural models are integrated and taught as analytical tools for understanding the effects of differing national cultural values on comparative management issues. Particular emphasis is on the development of skills in cross-cultural conflict avoidance, cross-cultural conflict resolution, and in managing international, multicultural teams and virtual/global networks. May be used to fulfill the Cultural Diversity course component of the General Education Requirements. Registration priority is given to CBA students. Prerequisite: junior standing.

MGT 460. Ethics in Business.
Cr. 3. (Also offered as LS 555.) An analysis of the moral bases for ethical decisions and ethical aspects of behavior in business leadership. Contemporary business conduct is examined in an ethical context.

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. Prerequisites: MGT 304 and senior standing.

MGT 471. International Business Environment and Global Strategy.
Cr. 3. (Also offered as ICP 611.) Capstone integrative course for the international business field. The course focuses on the strategic management of multinational operations within cross-border business environments, including the legal, political, trade, and information

technology environmental factors. Prerequisites: senior standing, MGT 304, and one of the following: FIN 430, IDS 430, MGT 440, and MKT 430.

MGT 475. Business Policy and Strategy.
Cr. 3. Capstone business course. The development of the administrative 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, FIN 304, IDS 305, MGT 304, MKT 304, and completion of or concurrent enrollment in IDS 410.

MGT 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. 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: ACC 205, ECON 221, and completion of at least 48 credit hours.

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. Prerequisites: MKT 304 and completion or concurrent enrollment in IDS 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. Prerequisites: MKT 304 and completion or concurrent enrollment in IDS 340.

MKT 330. Buyer Behavior.

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, also are 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: senior standing, MKT 304 and two of the following: IDS 340, MKT 310, MKT 320, MKT 330, MKT 430.

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.

COLLEGE OF ENGINEERING

Kraig J. Olejniczak, Ph.D., P.E., Dean

Mission. The mission of the College of Engineering is to educate qualified and motivated individuals in a strong undergraduate environment who, upon graduation, are prepared for lifelong learning and the pursuit of professional excellence by ethically and creatively applying scientific knowledge to benefit society.

Vision. The vision of the College of Engineering is to be the finest undergraduate engineering college at a comprehensive university developing the leaders for tomorrow.

Objectives. Engineering is the art of applying scientific and practical knowledge to the solution of problems for the benefit of society. The curriculum integrates scientific and engineering principles, practical laboratory and computer experiences, engineering design experiences culminating in a major design project, and liberal learning in the tradition of Christian church-related colleges and universities. Special emphasis is given to communication skills, the humanities, and the social sciences. Students are enriched by participation in the academic, social, cultural, and spiritual life that is central to the

Christian academic tradition at Valparaiso University. Graduates are prepared both for direct entry into the practice of engineering and for graduate school.

The Academic Program. Bachelor of Science degrees may be earned in civil, computer, electrical, and mechanical engineering. The goals of these programs are to build a strong foundation in mathematics, the natural and engineering sciences, and to provide an introduction to engineering design during the early portion of these programs. This is followed by courses with increased emphasis on engineering applications, design, teamwork, and interdisciplinary activity. Instruction in engineering design is integrated throughout the curriculum so that students advance toward higher levels of competence culminating in a senior design project which emphasizes formulation of problem statements and criteria, consideration of alternatives, and communication of results.

The laboratory program provides for first-hand observation of physical phenomena, experience in data collection and analysis,

verification of designs, written and oral communication, and teamwork. The use of computers in both the classroom and laboratory is fully integrated into the curriculum starting in the first semester.

History. Civil engineering courses were taught at Valparaiso University beginning in 1859. 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 for the College of Engineering and the Department of Mathematics and Computer Science.

The optional cooperative education program was initiated in 1983 and the first group of cooperative education students graduated in 1986.

College Organization.

Administratively, the College is an instructional unit under the direction of the Dean of Engineering. The individual programs in Civil Engineering, Computer Engineering, Electrical Engineering, and Mechanical Engineering are directed by the faculties of the three engineering departments under the leadership of Department Chairs. The Freshman Engineering Coordinator reports to the Dean.

Accreditation. Bachelor of Science degree programs in Civil Engineering, Computer Engineering, Electrical Engineering, and Mechanical Engineering are accredited

by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

Admission Requirements. The requirements for admission of first-year students to the College are listed on pages 254-255 of this catalog. Students who do not meet the mathematics and science 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 53. Pre-engineers who pass PHYS 141 and MATH 131 and have a grade point average of at least 2.0 in the three categories described on pages 213-214 may request admission to the College of Engineering.

Transfer Students. Academic work taken at other institutions is evaluated for advanced standing by the Registrar. The appropriate department 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.

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 their residence.

In addition to their own computer, students have direct access to a wide variety of computing environments, e-mail, and the Internet on the campus computing network. Network-connected computers for general student use are located in Gellersen Center, Schnabel Hall, the Christopher Center and most residence halls. In addition, work stations and personal computers containing software for engineering design, analysis, and simulation are located in various engineering laboratories. Residence halls have network access from individual rooms. Independent Service Provider (ISP) or dial-up access is available from off-campus locations.

The Freshman Program. First-year engineering students begin their program of study with a schedule of courses that is consistent for all engineering majors. Work

in a selected major begins in the second semester. The Freshman Engineering Coordinator serves as the academic advisor for all first-semester freshman engineering students.

The GE 100 Fundamentals of Engineering course is an integral part of the first-year program. The course focuses on the fundamental concepts of engineering, drawing on topics from each discipline and showing the interdisciplinary nature of the profession.

A typical class will begin with a lecture, move on to a case study, and end with a hands-on project or demonstration. Student mentors (i.e., upper-division engineering students) will aid in guiding the projects.

Freshmen will also participate in an Engineering Seminar, which features alumni and campus speakers to help the freshmen better understand the possibilities available in engineering.

Student Advisement. The Freshman Engineering Coordinator is the academic advisor for first-semester students. When a major is declared, the student is assigned to an academic advisor from that department's faculty. Majors are usually declared in the second semester of the freshman year.

Herman and Helen Hesse Learning Resource and Assessment Center. The Hesse Learning Resource and Assessment Center is an academic support program for students in the College of Engineering. Using peer tutors, it provides free one-on-one tutoring and group study sessions in math, science, and engineering courses for all engineering students. In conjunction with other campus-wide services, it also provides academic counseling, study-skill advising, assistance with technical writing, and group help sessions. The Center also assists in assessing outcomes of the College's educational programs. Located in Gellersen Center, it is open on all days when classes are in session.

Senior Project. All students in their senior year are required to complete a major design project. Students are organized into teams to plan, organize, execute, present, and document multidisciplinary design projects under the supervision of a faculty advisor.

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 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 Licensure. Licensure 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 licensed as a Professional Engineer (PE). Licensing requires passing the Fundamentals of Engineering (FE) 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 FE Examination during their senior year.

Student Professional and Service Organizations. To heighten student interest in the profession of engineering and in activities of the College of Engineering student body, 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 (ASCE), the Institute of Electrical and Electronics Engineers (IEEE), the American Society of Mechanical Engineers (ASME), and the Society of Women Engineers (SWE) all have active student chapters on campus. In addition, there is Society of Automotive Engineers (SAE) Club. 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.

In alignment with the University's and College of Engineering's mission statements, the Engineers Without Borders™ (EWB) - Valparaiso Chapter was formed in the spring of 2002. EWB (www.ewb-usa.org) is a non-profit organization that was established to help developing areas worldwide with their engineering needs, while involving and training globally responsible engineering students.

SPECIAL PROGRAMS OF THE COLLEGE OF ENGINEERING

Cooperative Education. The 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 co-op partners throughout the United States. The initial work assignment normally starts during the summer after the sophomore year. Academic credit is earned for each work period. Students typically complete four or five summer and semester work sessions with the same employer. The Cooperative 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.

Internships. The engineering internship program is an optional program in which all engineering students in good standing, except those participating in the Cooperative Education Program, may participate in during their summer breaks. Participation is limited to the summer between the freshman and sophomore years through the summer between the junior and senior years. Students interested in this program can earn up to three credit hours of academic credit for their participation in the program.

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 electromechanical, biomedical or chemical engineering or medicine can enrich their engineering programs by careful selection of electives. These programs involve replacing technical and free electives with courses from other disciplines. Each student plans a program of study in consultation with a faculty advisor and must secure approval of the Dean of Engineering. Upon graduation the student receives a Bachelor of Science degree in Civil, Computer, Electrical, or Mechanical Engineering.

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 162 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. An engineering student may earn a major or minor in other colleges of the university by satisfying catalog course and credit requirements for the major or minor. Each major or minor will require at least one course of at least three credits above any and all course work presented for the engineering degree. The use of engineering courses that are cross-listed or have equivalent course content with courses required for the major or minor is established by official action of the other college. The major or minor will be noted on the student's official academic record.

Departmental Minors. An engineering student seeking further breadth in their plan of study may earn one or more minors within the College of Engineering. The following minors are available: civil engineering, digital systems design, electrical engineering, and mechanical engineering. See the requirements for each in their respective departmental listing.

Engineering Minor. The engineering minor offers non-engineering students an introduction to areas of engineering. This minor is especially appropriate for students

with an interest in pursuing a career in an engineering-related field. The Freshman Engineering Coordinator will serve as advisor. This minor would be of interest to science students who need an approved minor to graduate (see page 48).

A minimum of 18 credit hours of engineering courses is required for this minor. Of these, at least 9 credits must be from 200-level or higher courses. GE 100 may not be included, and credit will not be given for both CE 334 and ME 373, for both ECE 261 and ECE 281, and for both CE 212 and ME 252. Students must satisfy course prerequisites. The course of study must be approved by the student's academic advisor.

Manufacturing Management Minor. An interdisciplinary minor in Manufacturing Management is offered jointly by the College of Engineering and the College of Business Administration (see page 239 for requirements).

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. Christ College courses provide an enriched program in the humanities and satisfy General Education Requirements for the engineering program. Academic advisors 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 obtain improved understanding of and appreciation for the history, geography, language, culture and engineering practices of other nations. In addition to the study opportunities described on pages 12-13 and 20-25 of this catalog, engineering students are permitted to arrange an international cooperative education assignment.

Valparaiso University International Engineering Program (VIEP-German). VIEP-German is a five-year program that combines a major in one of the four engineering fields with a major or minor in

German. The program allows students to gain multi-cultural experience and German language proficiency along with technical engineering skills and prepares them for careers with one of many German research and manufacturing firms located in the United States.

Students are required to fulfill all requirements for one of the four engineering majors; take one German course per semester beginning, at the latest, in the third semester; participate in Valparaiso University's Study Abroad Program in Reutlingen, Germany, in the seventh semester; enroll in at least one German-language engineering, science, or mathematics course while in Reutlingen; work in a cooperative education placement in Germany during the eighth semester and the ensuing summer; and reside in the Kade-Duesenberg German House and Cultural Center for at least two semesters.

VIEP-German is coordinated jointly by the College of Engineering and the Department of Foreign Languages and Literatures. Students who wish to enroll in VIEP-German should see their engineering advisor and a German instructor as early in the freshman year as possible.

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. The Department Chair or Freshman Engineering Coordinator may waive the requirement for GE 100 and/or GE 199. The requirement will be replaced with a free elective.

In addition to other requirements set forth on pages 266-268 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 mathematics and science. Computer science courses are included in the engineering major for Computer Engineering majors and in this category for non-Computer Engineering majors.

3. A cumulative GPA of 2.00 in the engineering major. This includes courses identified with the student's departmental prefix (i.e., CE, ECE, and ME, respectively) and all general engineering courses (GE).

Academic Deficiency. Students whose cumulative resident grade point average in any of the three categories listed above under Graduation Requirements falls below 2.00 are considered academically deficient. Such students may be denied the privilege of continuing their studies by being suspended from the 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 pursuing an engineering major or minor may take one engineering course per semester or summer session. Written recommendation of the Freshman Engineering Coordinator or a Department Chair and approval of the Dean of Engineering is needed to take two or more courses. 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 (lower than C-). 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.

General Engineering

Barbara Engerer, Freshman Engineering Coordinator

See page 50 for the number of credit hours that may be applied toward a degree in the College of Arts and Sciences.

- GE 100. Fundamentals of Engineering.**
2+2, Cr. 3. This is an introductory studio-lab course that focuses on the fundamental concepts of engineering. Topics are drawn from

principles of civil, computer, electrical, and mechanical engineering and show the interdisciplinary nature of the profession. Foundational skills such as problem solving, engineering communication, and teamwork are included. Students will participate in hands-on activities during most class periods.

- GE 109. Mechanics-Statics.**
Cr. 3. A course in the resolution and composition of forces and moments as applied to the free body diagram. Topics include principles of equilibrium, first and second moments of areas, study of trusses, frames and machines, and friction. Prerequisites: MATH 131 and PHYS 141.
- GE 199. Engineering Seminar.**
Cr. 0. This seminar includes topics in engineering opportunities, student success skills, and career planning.
- 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 acquisition systems. Utilizing case studies, the relevant technical and nontechnical decisions associated with issues and projects will be explored. Not open to engineering majors.
- GE 301. Principles of Engineering Practice.**
Cr. 3. A discussion of engineering practice including topics such as engineering economics, management, professional ethics, and safety. Student will participate on multidisciplinary teams. Prerequisite: junior standing.
- GE 386. Internship in Engineering.**
Cr. 1. A summer engineering work experience with a pre-selected and approved employer. Requires satisfactory work performance and submission of a final report in approved format. Students may repeat for a maximum of three work sessions. Grading will be on an S/U basis. Prerequisites: student must be in good standing in the College of Engineering and have approval of the respective Department Cooperative Education Coordinator.
- GE 481. Cooperative Education I.**
Cr. 2. The application of theoretical and experimental engineering concepts in a 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 reports in a format approved by each department. This course is graded S/U only for civil and mechanical engineering majors. Prerequisite: approval of the respective Department Cooperative Education Coordinator.

GE 482. Cooperative Education II.

Cr. 2. A continuation of GE 481. This course requires a satisfactory employer evaluation and reports in a format approved by each department. This course is graded S/U only for civil and mechanical engineering majors. Prerequisite: GE 481.

GE 483. Cooperative Education III.

Cr. 1. Application of the concepts of engineering in a business, consulting, industrial or government setting. It requires reports in a format approved by each department. This course is graded S/U only for civil and mechanical engineering majors. May be repeated for up to three credit hours. Prerequisite: approval of the respective Department Cooperative Education Coordinator.

GE 495. Special Problem.

Cr. 1-3. Selected students are permitted to work on 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 an approved format. Open only to students with permission of the faculty and approval of the Dean of Engineering.

GE 497. Senior Design Project I.

Cr. 3. The application of theoretical and experimental engineering concepts in the analysis and design of an engineering system. Students form teams to plan and organize a multidisciplinary project. Prerequisite: senior standing. Corequisite: GE 301.

GE 498. Senior Design Project II.

Cr. 2. A continuation of GE 497. Projects are built, tested, documented and reported. Prerequisite: GE 497.

Civil Engineering

Associate Professors Aljohbeh, Polito, Weiss; Assistant Professors Hagenberger (Acting Chair), Leitch, Zimmerman.

Mission. The mission of the Civil Engineering Department is to provide the highest quality of technical education which is grounded in the arts and sciences by faculty dedicated to challenging teaching and extraordinary care for individual students. The department will strive to develop graduates who will be effective members of engineering teams, managers of engineering projects, and serve as leaders in the civil engineering discipline and within the broader community of church and society.

Program Educational Objectives.

The educational objectives of the Civil Engineering Program include the following:

1. Graduates shall possess a sound understanding of civil engineering concepts and the interrelation of these concepts with technical and nontechnical issues in business and society.
2. Graduates shall possess a desire for and an appreciation of the importance of a commitment to lifelong learning as a means of professional development.
3. Graduates shall possess effective written and oral communication skills.
4. Graduates shall possess the ability to function effectively as team members.
5. Graduates shall have the desire and the ability to actively contribute to the discipline of civil engineering and/or society as a whole.

"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 to utilize, 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

The Civil Engineering Program is designed to prepare the graduate to enter the practice of engineering or to pursue graduate study. The program is broad in scope requiring students to complete course work in five major branches of civil engineering (i.e., environmental, geotechnical, structural, transportation, and water resources engineering). Additional depth in one or several branches can be obtained through appropriate electives. The program emphasizes the importance of effective communication (e.g., written and oral); the ability to work in teams; the importance of ethical and professional responsibility; the need to be lifelong learners; and the need to hold paramount the safety, health, and welfare of the public.

Design is an important component of the Civil Engineering Program. This includes distinguishing between analysis and design,

exposing students to various design methodologies, and requiring students to develop and evaluate (e.g., using economical, social, safety, and engineering criteria) alternative solutions to realistic engineering problems. The design experience (i.e., individually and in teams) is spread throughout the program and is incorporated into both classroom and laboratory exercises. In the sophomore year, students are introduced to fundamental aspects of the design process in the mechanics of materials and transportation courses. In the junior year, additional aspects of the design process and use of building codes are introduced in courses in structural design, soil and foundation engineering, and the sequence in environmental engineering. In the senior year, students are exposed to the design process in structural courses and electives. The design experience culminates with a major comprehensive design project in which students, working in teams, bring together their accumulated knowledge of design and analysis to solve a realistic engineering problem.

Laboratory work is designed to develop written communication skills, ability to analyze and interpret experimental data, self-confidence, and to aid in the interpretation and application of classroom theory. The majority of introductory courses in the five branches of civil engineering require a laboratory component. In addition, field exercises in surveying are an essential component of a student's education. The civil engineering department has modern, well-equipped laboratories in materials engineering, fluid mechanics, soil mechanics, and environmental engineering.

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*.

CORE 110 The Human Experience	5 Cr.
CORE 115 The Human Experience	5 Cr.
CHEM 115 Essentials of Chemistry	4 Cr.
CHEM 116 Applications of Chemistry in Engineering	4 Cr.
ENGL 300 Introduction to Professional Writing	3 Cr.
MATH 131 Analytic Geometry and Calculus I	4 Cr.
MATH 132 Analytic Geometry and Calculus II	4 Cr.
MATH 234 Differential Equations and Linear Algebra	4 Cr.
PE 100 Healthy Lifestyles	1 Cr.

PHYS 141 Mechanics and Heat	3 Cr.
PHYS 141L Experimental Physics I	1 Cr.
THEO 200 The Christian Tradition	3 Cr.
Foreign Language/Diversity Elective	3-4 Cr.
Humanities, Social Science, Theology Electives	6 Cr.
Mathematics/Science Elective	4 Cr.
Civil Engineering Professional Electives	6 Cr.
Engineering Science Elective	3 Cr.
GE 100 Fundamentals of Engineering	3 Cr.
GE 109 Mechanics-Statics	3 Cr.
GE 199 Engineering Seminar	0 Cr.
GE 301 Principles of Engineering Practice	3 Cr.
CE 151 Construction Surveying	3 Cr.
CE 202 Statistical Applications in Civil Engineering	3 Cr.
CE 212 Materials Engineering	3 Cr.
CE 215 Mechanics of Materials	3 Cr.
CE 253 Transportation	3 Cr.
CE 315 Structural Analysis I	3 Cr.
CE 316 Structural Design I	3 Cr.
CE 320 Soil Mechanics	4 Cr.
CE 322 Soil and Foundation Engineering	3 Cr.
CE 332 Hydrology	3 Cr.
CE 334 Fluid Mechanics	4 Cr.
CE 364 Environmental Engineering I	4 Cr.
CE 417 Structural Design II	3 Cr.
CE 465 Environmental Engineering II	3 Cr.
CE 493 Project Planning and Management	3 Cr.
CE 494 Senior Design Project	3 Cr.
Civil Engineering Electives	9 Cr.
Total required for graduation	132 Cr.

Civil Engineering Professional Electives. These six credits must be consistent with the student's written statement of career goals. Approval by the department chair is required.

Civil Engineering Electives. These nine 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 ^c.

Cooperative Education. Students may request to substitute up to six credits of GE 481 through GE 483 for the Civil Engineering Professional Electives.

Engineering Science Elective. The Engineering Science Elective requirement may be met by taking one of the following courses: ECE 221, ECE 281, ME 209, ME 270, ME 462, ME 463, or ME 468.

Foreign Language/Diversity Elective. Students will take three credits from either foreign languages at the 102 level or above or from the diversity list found on pages 315-316.

Humanities, Social Science, Theology Electives. Students will take six credits from the approved list of Humanities courses, Social Science courses

or Theology courses. Courses may be from the same area or from different areas. See pages 316-317 for Humanities and Social Science courses.

Mathematics/Science Elective.

These four credits will be satisfied by MATH 253; PHYS 142 and 142L; BIO 171, 172, 210; or CHEM 221.

Civil Engineering Minor. A minor in civil engineering is available to students majoring in computer, electrical, or mechanical engineering. A minimum of 18 credit hours in civil engineering, excluding CE 202, is required. GE 109 may be counted as part of the 18 credits. A concentration of at least two CE courses in water resources, structural, geotechnical, construction, environmental, or transportation engineering is required. At least nine credits must be at the 300 level or above. Mechanical engineering majors may not use CE 334 as part of the minor. The civil engineering department chair must approve the plan of study.

CIVIL ENGINEERING

See page 50 for the number of credit hours that may be applied toward a degree in the College of Arts and Sciences.

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. Engineering graphing techniques and CAD software are introduced. Students are also instructed in public speaking and required to give one or more oral presentations.

CE 202. Statistical Applications in Civil Engineering.

Cr. 3. An introduction to the primary statistical and probabilistic models used in the collection and interpretation of civil engineering data. The focus is on summary techniques, regression models, application of the Central Limit Theorem, confidence intervals, and recurrence intervals. Monte Carlo simulation techniques are used to estimate the failure likelihood of a civil engineering system. Prerequisite: MATH 132.

CE 212. Materials Engineering.

2+3, Cr. 3. Study of the mechanical and physical properties of construction materials. Introduction to concrete mix design. Laboratory experiments include the measurement of strains and deflections using mechanical and electrical gages; behavior and failure of ductile and brittle materials subjected to axial or bending forces;

introduction to creep, impact and stability of columns. A project is required, as well as written reports. Students are also instructed in public speaking and required to give one or more oral presentations. Prerequisite or corequisite: CE 215.

CE 215. Mechanics of Materials.

Cr. 3. (Also offered as ME 315 and PHYS 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: GE 109.

CE 253. Transportation.

Cr. 3. Introduction to transportation engineering with an emphasis on highway design. Topics include transportation demand and planning, parking and speed studies, human and vehicle design factors, environmental impact statements, horizontal and vertical alignment, earthwork volumes, and design of flexible and rigid pavements. Prerequisite: CE 151 or consent of the instructor.

CE 290. Topics in Civil Engineering.

Cr. 2-4. Seven weeks or semester. The investigation of civil engineering topics of special interest. Prerequisites depend on topics offered. Offered upon sufficient demand.

CE 299. Sophomore Honor Studies in Civil Engineering.

Cr. 1-3. Independent study of an advanced topic in civil engineering. Available by invitation only. Prerequisite: approval by the Civil Engineering Department.

CE 315. Structural Analysis I.

Cr. 3. Application of fundamental analysis concepts to the behavior of civil engineering structures and structural components. Analysis of statically determinate and indeterminate structures using classical methods such as slope deflection, conjugate beam, and flexibility methods. Introduction to a typical structural analysis software program. Prerequisite: CE 215.

CE 316. Structural Design I.

Cr. 3. Principles of the design of steel structures. Design includes axial tension and compression members, flexural members, beam-columns, connections, and composite design. LRFCD methods are used. Prerequisite: CE 315.

CE 320. Soil Mechanics.

3+3, Cr. 4. The study of index, mechanical and hydraulic properties of soils. Soil identification, compaction, shear strength, consolidation, vertical stress distribution, and flow through

- porous media. Principles of laboratory identification and testing of soils. Site investigation and in situ testing. Prerequisite: CE 215.
- CE 322. Soil and Foundation Engineering.**
Cr. 3. A continuation of CE 320. Lateral earth pressures, retaining wall design, elastic stress distribution, settlement, and bearing capacity of foundation systems. Sizing of shallow and deep foundation systems. Prerequisite: CE 320.
- CE 332. Hydrology.**
Cr. 3. Introduction to surface and ground water hydrology: hydrologic cycle, precipitation, evaporation, infiltration, ground water flow, well hydraulics, runoff, rainfall-run-off relationships, uniform flow in open channels, stream flow measurements, hydrologic routing, hydrologic modeling, hydrologic probability, and applications. Prerequisite: MATH 131.
- CE 334. Fluid Mechanics.**
3+3, Cr. 4. An examination of fluid properties, fluids at rest, and fluids in motion. Conservation of mass, and the energy and momentum principles are utilized along with dimensional analysis and similitude. Applications include pumps, flow in conduits, lift and drag, pipe networks, and hydraulic model studies. Integrated with the fluid mechanics per se are principles of mechanics-dynamics. Students are also instructed in public speaking and required to give one or more oral presentations. Prerequisites: MATH 132 and CE 215.
- CE 364. Environmental Engineering I.**
3+3, Cr. 4. Introductory study of water treatment and supply, wastewater collection and treatment common to rural and metropolitan areas. Laboratory principles and methods related to safety, sampling, data analysis, and measurement of selected physical, chemical, and biological characteristics of water and wastewater are introduced. Field trips are required. Prerequisites: CE 334 and CHEM 116.
- CE 399. Junior Honor Studies in Civil Engineering.**
Cr. 1-3. Independent study of an advanced topic in civil engineering. Available by invitation only. Prerequisite: approval by the Civil Engineering Department.
- CE 415. Structural Analysis II.**^c
Cr. 3. Analysis of statically indeterminate structures using energy and/or matrix methods. Direct stiffness and flexibility methods are discussed as are a variety of applications in structural analysis software including response to time-dependent loading such as blasts, earthquakes, etc. Prerequisite: CE 315.
- CE 417. Structural Design II.**
Cr. 3. Principles of the design of reinforced concrete structures. Design includes flexural members, compression members, one-way slabs and footings. ACI Strength Design Method. Prerequisite: CE 315.
- CE 418. Structural Design III.**^c
Cr. 3. 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 436. Water Resources Engineering.**^c
Cr. 3. Application of the principles of fluid mechanics to analysis and design of water resources projects. Topics include open-channel hydraulics, hydroelectric power, economic analysis, dams, spillways, river navigation, flood control, and water law. Prerequisite: CE 334 or ME 373.
- CE 442. Construction Engineering.**^c
Cr. 3. An introduction to construction management issues such as project delivery systems, construction scheduling, construction estimating, project documents, and legal issues. Prerequisite: junior or senior standing.
- CE 457. Traffic Engineering.**^c
Cr. 3. Fundamental traits and behavior of road users and their vehicles. Characteristics of a free-flowing traffic stream; capacity and level of service of urban and rural highways, signals and signalized intersection capacity; traffic speeds, volumes, signing and marking; accidents and safety. Taught in alternative years. Prerequisite: CE 253 or consent of instructor.
- CE 465. Environmental Engineering II.**
Cr. 3. Introductory study of solid and hazardous waste management and air pollution control. Study of solid and hazardous waste properties, sources, composition, magnitude, and regulations. Engineered solid waste management functional elements will be introduced. Landfilling methods, including siting and modern landfill designs, will be studied. Introduction to air pollution sources, quality, meteorology, atmospheric dispersion modeling, and control methods. Field trips are required.
- CE 466. Environmental Engineering Design.**^c
Cr. 3. A basic overview of remediation of contaminated soil and ground water at hazardous waste sites including development of site investigation plans, management of field investigations, environmental risk assessments, feasibility studies, innovative remedial design techniques, and case studies. Oral and written reports and field trips are required.
- CE 472. Project and Construction Management.**
Cr. 3. An introduction to professional practice issues such as contracts, addendums, bonds, design-build, bids, specifications, scheduling, and other legal issues. Students are also instructed in public speaking and required to give one or more oral presentations. Prerequisite: junior or senior standing. Last offered Fall 2009.

CE 490. Topics in Civil Engineering.
Cr. 2-4. Seven weeks or semester. The investigation of civil engineering topics of special interest. Prerequisites depend on topics offered. Offered upon sufficient demand. Prerequisite: junior standing or approval of the instructor.

CE 493. Project Planning and Management.
Cr. 3. An introduction to professional practice issues such as contracts, project proposals, project scheduling, project control, and project management. Student teams participate in the planning of an integrated and realistic civil engineering project. Knowledge gained in previous courses is used to incorporate the ethical, legal, societal, multicultural, economical, financial, aesthetic, and environmental aspects into the study. The course may include field trips and/or lectures by practicing professionals. Oral and written reports are required. Prerequisite: senior standing or permission of the department chair.

CE 494. Senior Design Project.
2+2, Cr. 3. Student teams participate in the design of integrated and realistic civil engineering projects. Knowledge gained in previous courses is used to incorporate the ethical, legal, societal, multicultural, economical, financial, aesthetic, and environmental aspects in the design. In addition, the elements of management and communications are involved. The course may include field trips and lectures by practicing professionals. Oral and written reports are required. Prerequisite: senior standing and CE 493, or permission of the department chair.

CE 499. Senior Honor Studies in Civil Engineering.
Cr. 1-3. Independent study of an advanced topic in civil engineering. Available by invitation only. Prerequisite: approval by the Civil Engineering Department.

Electrical and Computer Engineering

Professors Hart, Kraft, Olejniczak; Associate Professors E. Johnson, D. Tougaw (Chair), Will; Assistant Professors Budnik, Freeman; Adjunct Assistant Professor Kempf.

The Department of Electrical and Computer Engineering offers two degree programs: Electrical Engineering and Computer Engineering. These two degrees share a fundamental theoretical background that is reflected by many common courses and shared laboratory facilities.

Digital design courses introduce the formulation of design problems and the use of computer-aided design tools. During the junior year, students refine these design elements while studying digital filter design, electronics, and the design of hardware to interface with embedded microprocessors. Students also participate in modest group design projects. During the senior year, students begin a systematic study of the design process and apply the design skills developed in earlier courses to an interdisciplinary capstone project which requires the consideration of realistic constraints, formal project management, the building and testing of a design prototype, and thorough documentation.

The department supports a diverse set of laboratory facilities. The electronics laboratory supports work in digital and analog systems. This large facility also includes equipment for power electronics. The digital systems laboratory is used to study digital filtering systems and advanced digital logic design. This laboratory also houses a hardware-in-the-loop simulator used for power systems studies. The computer laboratories contain a network of work stations, PCs, peripherals, and embedded microcontroller software and hardware development systems. Design teams use the project laboratory to build and test their prototypes.

ELECTRICAL ENGINEERING

Electrical Engineering Mission. We prepare students with the engineering expertise and well-rounded education necessary to lead and serve society.

Electrical Engineering Program Educational Objectives. The educational objectives of the electrical engineering program are to:

1. Prepare students to practice electrical engineering in such areas as analog design, digital systems design, electronics, computer hardware and software design, power systems, communication systems, control systems, or signal processing.
2. Prepare students to communicate effectively in a wide variety of situations using appropriate tools.
3. Prepare students to work effectively on teams in a variety of roles.
4. Prepare students to design electrical engineering systems using creativity,

- technical competence, and problem-solving skills.
5. Prepare students to assume their ethical and professional responsibilities to meet the needs of society.
 6. Prepare students to function in a competitive business environment by understanding necessary economic and business practices.
 7. Prepare students to appreciate the need for and to engage in continuous independent learning activities.

Graduation Requirements. The following courses and electives are required to earn the Bachelor of Science in Electrical Engineering degree. A typical plan of study for each semester is published in the *Student Guide to University Life*.

CORE 110 The Human Experience	5 Cr.
CORE 115 The Human Experience	5 Cr.
MATH 131 Analytic Geometry and Calculus I	4 Cr.
MATH 132 Analytic Geometry and Calculus II	4 Cr.
MATH 234 Differential Equations and Linear Algebra	4 Cr.
MATH 253 Calculus III	4 Cr.
PE 100 Healthy Lifestyles	1 Cr.
PHYS 141 (or 151) Mechanics and Heat	3 Cr.
PHYS 141L Experimental Physics I	1 Cr.
PHYS 142 (or 152) Electricity, Magnetism, Waves	3 Cr.
THEO 200 The Christian Tradition	3 Cr.
Foreign Language/Diversity Elective	3-4 Cr.
Humanities, Social Science, Theology Electives	6 Cr.
Free Elective	3 Cr.
GE 100 Fundamentals of Engineering	3 Cr.
GE 199 Engineering Seminar	0 Cr.
GE 301 Principles of Engineering Practice	3 Cr.
GE 497 Senior Design Project I	3 Cr.
GE 498 Senior Design Project II	2 Cr.
ECE 110 Exploring Electrical and Computer Engineering	2 Cr.
ECE 111 Exploring Electrical and Computer Engineering Laboratory	1 Cr.
ECE 200 Computational Techniques for Electrical and Computer Engineers I	2 Cr.
ECE 201 Computational Techniques for Electrical and Computer Engineers II	2 Cr.
ECE 221 Digital Logic Design	3 Cr.
ECE 222 Advanced Logic Design	3 Cr.
ECE 250 Fundamentals of Programming	3 Cr.
ECE 261 Linear Circuit Theory I	3 Cr.
ECE 262 Linear Circuit Theory II	3 Cr.
ECE 322 Embedded Microcontrollers	3 Cr.
ECE 340 Electronics I	3 Cr.
ECE 341 Electronics II	3 Cr.
ECE 360 Signals and Systems	3 Cr.
ECE 365 Probability and Statistics for Electrical and Computer Engineers	3 Cr.
ECE 430 Electromagnetic Field Theory	3 Cr.
ECE 453 Communication Systems	3 Cr.
Mathematics/Science Electives	9 Cr.
Professional Electives	6 Cr.
Electrical Engineering Electives	12 Cr.
Total required for graduation	130 Cr.

Cooperative Education. Six credits of GE 481 through GE 483 may be used to satisfy the Professional Electives requirement if a minimum of six credits of cooperative education have been completed.

Electives. Specific recommendations regarding the selection of electives are available from the department and should be made in consultation with a departmental academic advisor.

Electrical Engineering Electives. Twelve credits must be taken by choosing four of the following seven courses: ECE 424, 429, 450, 452, 460, 471, and 472. At least two of these courses must be chosen from the following core electrical engineering electives: ECE 452, 460, 471 and 472. Other courses may be used to satisfy this elective with the approval of the department faculty.

Foreign Language/Diversity Elective. Students will take three credits from either foreign language courses at the 102 level or above or from the diversity list found on pages 315-316.

Humanities, Social Science, Theology Electives. Students will take six credits from the approved list of Humanities courses, Social Science courses, or Theology courses. Courses may be from the same area or from different areas. See pages 316-317 for Humanities and Social Science courses.

Mathematics/Science Electives. The Mathematics/Science Elective requirement may be met by taking one of the following courses: ASTR 252; BIO 151, 152, 171, 172, 210, 250, or 270; CHEM 115, 116, 121, 122, 221, or 230; MATH 340, 366, 430 or 434; ECE 357; PHYS 250, 360, 381, 421, 430, or 440. Other choices may be made available by petition to the ECE Department.

Professional Electives. These courses are selected, in consultation with the academic advisor, to support the student's specific career goals.

Electrical Engineering Minor. A minor in electrical engineering is available for students majoring in civil or mechanical engineering. A minimum of 19 credit hours is required. Courses must include ECE 110, 111, 200, 221, and 261. The remaining credits must be taken from the following courses: ECE 201, 222, 262, 322, 340, 341, 360, 429, 471 and 472.

COMPUTER ENGINEERING

Computer Engineering Mission. We prepare students with the engineering expertise and well-rounded education necessary to lead and serve society.

Computer Engineering Program Educational Objectives. The educational objectives of the computer engineering program are to:

1. Prepare students to practice computer engineering in such areas as digital systems design, computer architecture, and computer hardware and software design.
2. Prepare students to communicate effectively in a wide variety of situations using appropriate tools.
3. Prepare students to work effectively on teams in a variety of roles.
4. Prepare students to design computer engineering systems using creativity, technical competence, and problem-solving skills.
5. Prepare students to assume their ethical and professional responsibilities to meet the needs of society.
6. Prepare students to function in a competitive business environment by understanding necessary economic and business practices.
7. Prepare students to appreciate the need for and to engage in continuous independent learning activities.

Graduation Requirements. The following courses and electives are required to earn the Bachelor of Science in Computer Engineering degree. A typical plan of study for each semester is published in the *Student Guide to University Life*.

CORE 110 The Human Experience	5 Cr.
CORE 115 The Human Experience	5 Cr.
MATH 131 Analytic Geometry and Calculus I	4 Cr.
MATH 132 Analytic Geometry and Calculus II	4 Cr.
MATH 234 Differential Equations and Linear Algebra	4 Cr.
MATH 253 Calculus III	4 Cr.
PE 100 Healthy Lifestyles	1 Cr.
PHYS 141 (or 151) Mechanics and Heat	3 Cr.
PHYS 141L Experimental Physics I	1 Cr.
PHYS 142 (or 152) Electricity, Magnetism, Waves	3 Cr.
THEO 200 The Christian Tradition	3 Cr.
Foreign Language/Diversity Elective	3-4 Cr.
Humanities, Social Science, Theology Electives	6 Cr.
GE 100 Fundamentals of Engineering	3 Cr.
GE 199 Engineering Seminar	0 Cr.
GE 301 Principles of Engineering Practice	3 Cr.
GE 497 Senior Design Project I	3 Cr.
GE 498 Senior Design Project II	2 Cr.

ECE 110 Exploring Electrical and Computer Engineering	2 Cr.
ECE 111 Exploring Electrical and Computer Engineering Laboratory	1 Cr.
ECE 200 Computational Techniques for Electrical and Computer Engineers I	2 Cr.
ECE 201 Computational Techniques for Electrical and Computer Engineers II	2 Cr.
ECE 221 Digital Logic Design	3 Cr.
ECE 222 Advanced Logic Design	3 Cr.
ECE 251 Algorithms and Programming	3 Cr.
ECE 252 Algorithms and Abstract Data Types	3 Cr.
ECE 261 Linear Circuit Theory I	3 Cr.
ECE 262 Linear Circuit Theory II	3 Cr.
ECE 322 Embedded Microcontrollers	3 Cr.
ECE 340 Electronics I	3 Cr.
ECE 341 Electronics II	3 Cr.
ECE 357 Algebraic and Discrete Structures I	3 Cr.
ECE 360 Signals and Systems	3 Cr.
ECE 365 Probability and Statistics for Electrical and Computer Engineers	3 Cr.
ECE 424 Computer Architecture	3 Cr.
ECE 430 Electromagnetic Field Theory	3 Cr.
CS 257 Data Structures and Programming Languages	4 Cr.
CS 347 Operating Systems and Networking	4 Cr.
CS 358 Software Design and Development	4 Cr.
Mathematics/Science Elective	3 Cr.
Professional Electives	6 Cr.
Computer Engineering Elective	3 Cr.
Total required for graduation	130 Cr.

Computer Engineering Elective.

Three credits must be taken by choosing one of the following courses: ECE 429, 450, and 452.

Cooperative Education. Six credits of GE 481 through GE 483 may be used to satisfy the Professional Electives requirement if a minimum of six credits of cooperative education have been completed.

Electives. Specific recommendations regarding the selection of electives are available from the department and should be made in consultation with a departmental academic advisor.

Foreign Language/Diversity Elective. Students will take three credits from either foreign language at the 102 level or above or from the diversity list found on pages 315-316.

Humanities, Social Science, Theology Electives. Students will take six credits from the approved list of Humanities courses, Social Science courses, or Theology courses. Courses may be from the same area or from different areas. See pages 316-317 for Humanities and Social Science courses.

Mathematics/Science Elective. The Mathematics/Science Elective requirement

may be met by taking one of the following courses: ASTR 252; BIO 151, 152, 171, 172, 210, 250, or 270; CHEM 115, 116, 121, 122, 221, or 230; MATH 340, 366, 430, or 434; PHYS 250, 360, 381, 421, 430, or 440. Other choices may be made available by petition to the ECE Department.

Professional Electives. These courses are selected, in consultation with the advisor, to support the student's specific career goals.

Digital Systems Design Minor. This minor is available to qualified students who wish to document some background in computer hardware, but do not want to major in electrical or computer engineering. The courses required for the completion of this minor are ECE 221, 222, 322 and two of the following: ECE 424, 429, or 450. The minor is available to any student, except those in the ECE department, who meets all prerequisites necessary to enroll in those courses that constitute the minor.

ELECTRICAL AND COMPUTER ENGINEERING COURSES

See page 50 for the number of credit hours that may be applied toward a degree in the College of Arts and Sciences.

ECE 110. Exploring Electrical and Computer Engineering.

Cr. 2. An introductory course emphasizing basic circuit analysis, characteristics of common electrical devices, computer tools including simulations, and problem-solving techniques. Prerequisite: enrollment in the College of Engineering and MATH 131 or concurrent registration.

ECE 111. Exploring Electrical and Computer 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 200. Computational Techniques for Electrical and Computer Engineers I.

Cr. 2. Introduction to the solution of electrical and computer engineering problems using computers. Important software packages such as LabVIEW, MATLAB and PSpice are used. Corequisite: ECE 261.

ECE 201. Computational Techniques for Electrical and Computer Engineers II.

Cr. 2. A continuation of ECE 200. Topics involve the solution of electrical and computer engineering problems using computers. Prerequisite: ECE 200. Corequisite: ECE 262.

ECE 221. Digital Logic Design.

2.5+1.5, Cr. 3. (Also offered as CS 320.) An introduction to digital logic concepts, including the analysis and design of combinational and sequential digital circuits.

ECE 222. Advanced Logic Design.

2.5+1.5, Cr. 3. A continuation of ECE 221 that includes the design of MSI and LSI digital circuits using a hardware description language (VHDL). Designs are also implemented in programmable logic devices (PALs, CPLDs). Prerequisite: ECE 221 with a minimum grade of C.

ECE 250. Fundamentals of Programming.

2+2, Cr. 3. (Also offered as CS 156.) A study of fundamental programming constructs, algorithms, data structures, and object orientation. An emphasis is placed on programming strategies and the application of computer algorithms to solve problems in engineering and mathematics. Students cannot receive credit for both ECE 250 and ECE 251.

ECE 251. Algorithms and Programming.

2+3, Cr. 3. (Also offered as CS 157.) A first course in algorithm development and problem solving and an introduction to the use of a computer system with special emphasis on object-orientation. The student designs algorithms for the solution of elementary problems, and writes, documents, and debugs programs for the implementation of those algorithms. Techniques of software design and algorithm analysis are introduced. Students cannot receive credit for both ECE 250 and ECE 251.

ECE 252. Algorithms and Abstract Data Types.

2+3, Cr. 3. (Also offered as CS 158.) A continuation of ECE 251 with emphasis on developing more skills in complex program development and data structures. Topics include stacks, queues and linked lists. Students design and write intermediate-sized programs. Prerequisite: CS 157, ECE 250, or ECE 251.

ECE 261. Linear Circuit Theory I.

2.5+1.5, Cr. 3. A study of the fundamental methods and theorems of electric circuit analysis. Topics include steady-state and transient analysis of DC and AC circuits containing resistors, capacitors, inductors, and operational amplifiers. Prerequisite: MATH 131; corequisite: ECE 200.

ECE 262. Linear Circuit Theory II.

2.5+1.5, Cr. 3. A continuation of ECE 261. Topics include power computations, transformers, frequency response, filters, Laplace transforms, and Fourier series. Prerequisite: ECE 261 with a minimum grade of C; corequisite: ECE 201.

ECE 281. Fundamentals of Electrical Engineering.

2.5+1.5, Cr. 3. (Also offered as PHYS 281.) 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: MATH 131.
- ECE 290. Sophomore Project.**
Cr. 1-3. An independent research, development, or design project done under the supervision of a faculty member. Prerequisite: sophomore standing.
- ECE 299. Sophomore Honor Studies in Electrical and Computer Engineering.**
Cr. 1-3. Independent study of an advanced topic in electrical engineering. Available by invitation only. Prerequisite: approval by the Electrical and Computer Engineering Department.
- ECE 322. Embedded Microcontrollers.**
2.5+1.5, Cr. 3. (Also offered as PHYS 322).
The application of microcontrollers in embedded system design, emphasizing the interaction of hardware and software design. Use of assembly language programming to interface external hardware to a microcontroller. Prerequisite: ECE 222 with a minimum grade of C.
- ECE 340. Electronics I.**
2.5+1.5, Cr. 3. An introduction to semiconductor theory and the design and analysis of electronic circuits. Topics include diodes, field-effect and bipolar transistors, CMOS logic circuits, single-state discrete transistor amplifiers, and multistage integrated-circuit amplifiers. Prerequisite: ECE 261 with a minimum grade of C.
- ECE 341. Electronics II.**
2.5+1.5, Cr. 3. Topics include power amplifiers, DC power supplies, data converters, feedback, oscillators, switched-capacitor circuits, and transistor memory units. Prerequisite: ECE 340.
- ECE 357. Algebraic and Discrete Structures I.**
Cr. 3. (Also offered as MATH 168.) An introduction to mathematical reasoning, algorithm analysis and the concepts that provide a mathematical foundation for computer science. Topics include a review of sets, relations, functions and matrices; proof techniques, including mathematical induction; counting techniques; difference equations; applications and elementary analysis of iterative and recursive algorithms. Prerequisite: ECE 250 or ECE 251.
- ECE 360. Signals and Systems.**
Cr. 3. Continuous and discrete systems and signals are considered in both time and frequency domains. Continuous-time linear systems topics include Fourier series, Fourier transforms, and Laplace transforms. Discrete-time topics include the discrete Fourier transform, the Z-transform, sampling, quantization, and discrete-time processing.
- Discrete and continuous filtering techniques are introduced. Prerequisite: ECE 262 with a minimum grade of C.
- ECE 365. Probability and Statistics for Electrical and Computer Engineers.**
Cr. 3. Basic discrete and continuous probability theory with applications, sampling, correlations and regression, and multiple random variables. Prerequisites: ECE 262 and MATH 253.
- ECE 390. Junior Project.**
Cr. 1-3. An independent research, development, or design project done under the supervision of a faculty member. Prerequisite: junior standing.
- ECE 399. Junior Honor Studies in Electrical and Computer Engineering.**
Cr. 1-3. Independent study of an advanced topic in electrical engineering. Available by invitation only. Prerequisite: approval by the Electrical and Computer Engineering Department.
- ECE 424. Computer Architecture.**
Cr. 3. The description, organization, and design of computer elements to perform effectively. Instruction set design, caches, pipelining, and microprogramming. Prerequisite: ECE 222.
- ECE 429. VLSI Design Principles and Tools.**
Cr. 3. An introduction to the fundamental principles of CMOS digital integrated circuit design. Extensive use of CAD tools for layout and simulation. Techniques for speed and size trade-off are studied. Prerequisites: ECE 221 and ECE 262 with minimum grades of C in both.
- 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 transmission lines, Maxwell's equations and electromagnetic radiation. Prerequisite: MATH 253.
- ECE 450. Digital Communication Systems.**
Cr. 3. Theory of interconnected digital systems including information flow control by packet and circuit-switching techniques and standards for communication between network nodes. Prerequisites: ECE 250 or ECE 251, and ECE 262.
- ECE 452. Digital Signal Processing.**
2.7+1, Cr. 3. This course is an overview of the theory and techniques of the basic concepts of digital signal processing. Topics covered include design of FIR and IIR filters, construction of algorithms for real-time and off-line signal processing, relationships between analog and digital realizations, and real-time hardware considerations. Prerequisite: ECE 360.
- ECE 453. Communication Systems.**
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 360 and ECE 365.

ECE 460. Control System Design.

Cr. 3. A study of the application of feedback analysis and design in the frequency and time domains. Classical design is considered using root-locus and frequency response methods. Models derived from frequency response data are introduced. Introduction to modern control (state-space representation and pole placement) and Luenberger observers. Prerequisite: ECE 360.

ECE 471. Power Electronics.

2.7+1, Cr. 3. A course in the application and design of power semiconductor circuits. Topics include rectifiers, AC controllers, inverters and switched-mode power supplies. Prerequisite: ECE 262.

ECE 472 (formerly ECE 372). Power Transmission and Distribution.

2.5+1.5, Cr. 3. The principles of electric power transmission and distribution are studied through the development of models of all major components of a modern electric power grid. The course includes the development and application of power system analysis tools for power flow and fault analysis. Prerequisite: ECE 262.

ECE 490. Topics in Electrical and Computer Engineering.

Cr. 1-3. The investigation of electrical engineering or computer engineering topics of special interest. Prerequisite: consent of the Chair of the Department.

ECE 499. Senior Honor Studies in Electrical and Computer Engineering.

Cr. 1-3. Independent study of an advanced topic in electrical engineering. Available by invitation only. Prerequisite: approval by the Electrical and Computer Engineering Department.

Mechanical Engineering

Professors Palumbo (Chair), Schoech, Steffen; Associate Professor Doria; Assistant Professors Duncan, P. Johnson, Sevenser.

Mission. The Mechanical Engineering Department provides a program of professional studies grounded in engineering fundamentals and arts and sciences augmented by the development of

interpersonal skills, experiential learning, and an appreciation of lifelong learning. Graduates are prepared to apply their knowledge to society's needs and help shape the future.

Program Educational Objectives.

The educational objectives of the Mechanical Engineering Program are the following:

1. Prepare graduates for the practice of mechanical engineering in such areas as mechanical design, systems, manufacturing, experimentation, and energy conversion;
2. Prepare graduates to communicate in a wide variety of settings using appropriate methods;
3. Prepare graduates to work effectively on teams in a variety of roles;
4. Prepare graduates who have an understanding of and concern for ethical, safety, environmental, social, economic, global and lifelong learning issues faced by practicing engineers. Graduates will be committed to fairness, integrity and honesty, respect for human dignity, serving others, excellence, and growth;
5. Prepare graduates to be proficient in a laboratory setting. They will have good hands-on skills with mechanical/electrical hardware and data acquisition software. They will be able to design experiments and use uncertainty analysis tools;
6. Prepare graduates with a broad based education, which includes a strong liberal arts component to frame and focus their technical skills and enhance their quality of life.

Program Overview. The practice of mechanical engineering includes a wide variety of technical activities in the areas of energy conversion, automatic control of engineering processes, and the design, development and manufacture of mechanical components and systems. Mechanical engineering contributes to almost every aspect of our society.

The Mechanical Engineering Program prepares the individual for leadership roles on multidisciplinary teams that will address both technical and nontechnical issues. A curriculum solidly comprised of fundamental engineering course work and the humanities and social sciences is an essential element in the preparation process.

Courses are sequenced to build upon a firm foundation in mathematics, basic

sciences, and engineering sciences. Courses progressively involve students in engineering design activities and culminate in a major interdisciplinary design experience during the final year of study. Alongside technical issues, design activities address economic, safety, environmental, sustainability, product development, and social factors.

Graduates of the Mechanical Engineering Program at Valparaiso University are qualified to enter industry as practicing engineers or to pursue advanced degrees.

Mechanical Engineering Laboratories. The Mechanical Engineering Program contains a significant laboratory component which is closely correlated with lecture courses. There are eight primary laboratory facilities within the department. Additional laboratory facilities support senior design projects. Personal computers with appropriate hardware and software are available in the laboratories for mechanical design, to acquire and analyze data, to control hardware, and to report results in graphic and tabular form.

The *Mechanical Measurements and Mechatronics Laboratory* complements instruction in the use of standard measurement equipment, calibration techniques, computer data acquisition and the study of mechanical and electrical systems.

The *Energy Systems Laboratory* provides the opportunity to study the laws governing work, heat, and energy conversion. This facility includes laboratory equipment such as an internal combustion engine, a supersonic nozzle, a solar collector, a heat pump, and a wind tunnel.

The *Automatic Control Laboratory* is used to conduct experiments with simulated process systems and the associated instrumentation to control these processes.

The *Manufacturing Processes and Systems Laboratory* supports instruction in methods and theory of metal working, automation, product design and development, and the design, operation, and control of production systems. In addition to metal cutting, forming, welding, grinding and inspection equipment, this laboratory contains the Integrated Manufacturing and Design Facility with Computer-Aided Design/Computer-Aided Manufacturing (CAD/CAM) software, Computer Numerical Control (CNC) machine tools, robots, and vision systems.

The *Materials Science Laboratory* contains equipment for conducting a variety of

materials experiments including impact, tension, creep, cold working, hardness and nondestructive testing. Special emphasis is placed upon modification of material properties by heat treatment. Metallurgical specimens are prepared and examined.

The *Experimental Stress Laboratory* provides primary equipment for strain/stress analysis including electrical resistance strain gages and photoelasticity.

The *Vibrations Laboratory* contains mechanical and electrical vibration excitation and measuring devices along with equipment to perform modal analysis and sound measurement.

Graduation Requirements. The following courses and electives are required to earn the Bachelor of Science in Mechanical Engineering degree. A typical plan of study for each semester is published in the *Student Guide to University Life*.

CORE 110 The Human Experience	5 Cr.
CORE 115 The Human Experience	5 Cr.
CHEM 115 Essentials of Chemistry	4 Cr.
MATH 131 Analytic Geometry and Calculus I	4 Cr.
MATH 132 Analytic Geometry and Calculus II	4 Cr.
MATH 234 Differential Equations and Linear Algebra	4 Cr.
MATH 240 Statistical Analysis	3 Cr.
MATH 253 Analytic Geometry and Calculus III	4 Cr.
PE 100 Healthy Lifestyles	1 Cr.
PHYS 141 Mechanics and Heat	3 Cr.
PHYS 141L Experimental Physics I	1 Cr.
PHYS 142 Electricity, Magnetism and Waves	3 Cr.
THEO 200 The Christian Tradition	3 Cr.
Foreign Language/Diversity Elective	3-4 Cr.
Humanities, Social Science, Theology Electives	6 Cr.
Free Elective	3 Cr.
GE 100 Fundamentals of Engineering	3 Cr.
GE 109 Mechanics-Statics	3 Cr.
GE 199 Engineering Seminar	0 Cr.
GE 301 Principles of Engineering Practice	3 Cr.
GE 497 Senior Design Project I	3 Cr.
GE 498 Senior Design Project II	2 Cr.
ECE 281 Fundamentals of Electrical Engineering	3 Cr.
ME 104 Computer-Aided Design	3 Cr.
ME 209 Mechanics-Dynamics	3 Cr.
ME 225 Computational Techniques for Mechanical Engineers	3 Cr.
ME 252 Materials Science	3 Cr.
ME 253 Manufacturing Processes	4 Cr.
ME 270 Thermodynamics I	3 Cr.
ME 315 Mechanics of Materials	3 Cr.
ME 332 Mechatronics	3 Cr.
ME 333 Mechanical Measurements Laboratory	4 Cr.
ME 362 Mechanisms	3 Cr.
ME 373 Fluid Mechanics	3 Cr.
ME 374 Heat Power Laboratory	1 Cr.
ME 376 Heat Transfer	3 Cr.
ME 463 Machine Design I	3 Cr.
ME 470 Thermodynamics II	3 Cr.
Mechanical Engineering Electives	12 Cr.
Total required for graduation	130 Cr.

Cooperative Education. GE 481 through GE 483 credits may be used to satisfy the Free Elective requirement. Courses GE 481-483 are graded S/U only.

Free Elective. Students are encouraged to select a course aligned with enhancing their life goals. A public speaking course is recommended for individuals who have not had a formal course in this subject. A speech course should be selected from COMM 140, 145, or 243.

Foreign Language/Diversity Elective. Students will take three credits from either foreign languages at the 102 level or above or from the diversity list found on pages 315-316.

Humanities, Social Science, Theology Electives. Students will take six credits from the approved list of Humanities courses, Social Science courses, or Theology courses. Courses may be from the same area or from different areas. See pages 316-317 for Humanities and Social Science courses.

Mechanical Engineering Electives. Twelve credits of mechanical engineering courses are to be selected 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. Only three hours of ME 499 course credits may be applied as an ME elective.

Courses which fulfill mechanical engineering elective requirements are indicated with a superscript ^m.

Manufacturing Management Minor. This interdisciplinary minor is described on page 239.

Mechanical Engineering Minor. A minor in mechanical engineering is available for students majoring in civil, computer, or electrical engineering. A minimum of 19 credit hours is required. Courses must include GE 109, ME 209, ME 253 or 354, and ME 270. The remaining credits must be from ME courses at the 300 level or above. ECE 460 may be taken in place of ME 444. Civil engineering majors may not use ME 373 for the minor.

MECHANICAL ENGINEERING

See page 50 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.

2.5+1.5, Cr. 3. A course in the theory and technique of engineering graphics related to the design process. Emphasis is placed on orthographic and isometric projections, oblique and section views, and dimensioning and tolerancing. The laboratory focuses on 3-D modeling strategies including line drawings, solid modeling, and parametric modeling using computer-aided design software.

ME 209. Mechanics-Dynamics.

Cr. 3. A study of individual particles and systems of particles in rectilinear and curvilinear motion in two and three dimensions. 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; and impulse and momentum. Prerequisites: MATH 132 and GE 109.

ME 225. Computational Techniques for Mechanical Engineers.

Cr. 3. Problems in mechanical engineering are solved using numerical methods and MATLAB software. Topics in numerical methods include solution of nonlinear equations, fitting functions to data, integration, differentiation, interpolation of data, solution of ordinary differential equations, and multivariable uncertainty analysis using statistical methods. The graphical capabilities of MATLAB are used to generate engineering plots. The use of MATLAB as a programming language is developed. Corequisite: MATH 234.

ME 252. Materials Science.

2.5+1.5, Cr. 3. (Also offered as PHYS 252.) A study of structure-property-processing relationships of engineering materials related to their selection in design and manufacturing processes. 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. Prerequisite: MATH 132; corequisite: CHEM 115.

ME 253. Manufacturing Processes.

3+3, Cr. 4. (Also offered as ME 354.) A study of manufacturing emphasizing metal cutting and forming, operation planning, fabrication techniques and inspection. Statistical Process Control (SPC), application of machine tools and Computer Numerical Control (CNC) are introduced. Field trips to industrial facilities are arranged. Prerequisite: ME 104.

ME 270. Thermodynamics I.

Cr. 3. A study of the first and second laws of thermodynamics. Extensive use of these laws is made in analyzing processes and 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 315. Mechanics of Materials.**
Cr. 3. (Also offered as CE 215 and PHYS 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: GE 109.
- ME 332. Mechatronics.**
2.5+1.5, Cr. 3. 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, systems-level modeling and systems engineering principles. Prerequisite: ECE 281.
- ME 333. Mechanical Measurements Laboratory.**
3+3, Cr. 4. (Also offered as PHYS 333.) A study of fundamental concepts and physical principles involved in the science of measurement and design of experiments. 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 analysis. Corequisite: ME 225 or ECE 250; prerequisites: CORE 110, PHYS 142 and ME 270.
- ME 354. Manufacturing Processes.**
3+3, Cr. 4. (Also offered as ME 253.) See course description for ME 253. Open only to non-mechanical engineering majors in the Manufacturing Management Minor program. Prerequisite: MATH 122 or MATH 131.
- ME 362. Mechanisms.**
Cr. 3. 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 sizing and application of motion programs to cam design are considered. Prerequisites: ME 209 and ME 225; corequisite: MATH 253.
- ME 373. Fluid Mechanics.**
Cr. 3. 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: ME 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. Prerequisites: ME 270, ME 333, and ME 373; corequisite: ME 376.
- ME 376. Heat Transfer.**
Cr. 3. The fundamentals of heat transfer by conduction, radiation and forced and free convection are developed and applied to engineering problems. Prerequisite: ME 270.
- ME 444. Automatic Control.^m**
2.5+1.5, Cr. 3. 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 stability, controller selection and adjustment, numerical analysis techniques and system sequencing to achieve specific control objectives. Prerequisites: ME 333 and MATH 234.
- ME 456. Manufacturing System Design.^m**
Cr. 3. A study of the application of Computer-Aided Design/Computer-Aided Manufacturing (CAD/CAM), robots, machine vision, Computer Numerical Control (CNC) machine tools, and computers to the design of manufacturing systems, with emphasis on manned and flexible cells. Prerequisite: ME 253 or senior standing in electrical and computer engineering.
- ME 457. Product and Production System Design.**
2.5+1.5, Cr. 3. (Also offered as ME 458.) Product design/development and production system design are the focus of lectures and a semester-long laboratory experience in which a simple product and its production system are designed and produced. The design, operation, and control of production systems are studied with emphasis on manned and robotic cellular manufacturing systems. Open only to non-mechanical engineering majors in the Manufacturing Management Minor program. Prerequisite: ME 253 or ME 354.
- ME 458. Product and Production System Design.^m**
2.5+1.5, Cr. 3. (Also offered as ME 457.) See course description above. Prerequisite: ME 253.
- ME 462. Vibrations.^m**
2.5+1.5, Cr. 3. 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. Analytical and experimental modal analysis techniques and finite-element analysis are presented. Prerequisites: MATH 234, ME 225, and ME 209.

ME 463. Machine Design I.

2.75+.75, Cr. 3. 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, joints and general mechanical elements. Prerequisite: ME 315.

ME 464. Machine Design II.^m

2.75+.75, Cr. 3. 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 machine dynamics are considered. Prerequisite: senior standing in mechanical engineering.

ME 468. Experimental Stress Analysis.^m

2.5+1.5, Cr. 3. 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: ME 315.

ME 470. Thermodynamics II.

Cr. 3. Continuation of ME 270. Topics include combustion principles and cycle optimization using the second law of thermodynamics. Prerequisites: ME 270 and CHEM 115.

ME 475. Advanced Topics in Thermodynamics and Heat Transfer.^m

Cr. 3. Topics may include a continuation of material in ME 376 such as advanced conduction, convection, or radiation heat transfer. It may include a continuation of topical material in ME

470 such as combined cycle analysis, turbomachinery design principles, and combustion with emphasis on chemical kinetics and mass transfer effects. The topic is determined by the instructor prior to the course offering based, in part, on student interest. Prerequisites: ME 270, ME 373, and ME 470; corequisite: ME 376. ME 470 prerequisite can be waived with instructor approval.

ME 476. Advanced Topics in Fluid Mechanics.^m

Cr. 3. Topics may include computational fluid dynamics or a continuation of topical material in ME 373 such as compressible fluid flow. The topic is determined by the instructor prior to the course offering based, in part, on student interest. Prerequisites: ME 270 and ME 373; corequisite: ME 376.

ME 490. Topics in Mechanical Engineering.^m

Cr. 1-3. Seven weeks or semester. The investigation of mechanical engineering topics of special interest. Prerequisite: consent of the Department Chair. Offered upon sufficient demand.

ME 499. Undergraduate Research in Mechanical Engineering.^m

Cr. 1-3. Independent study of an advanced topic in mechanical engineering. This course may be repeated for additional credit. Available by invitation only. Prerequisite: approval by the Mechanical Engineering Department.

COLLEGE OF NURSING

Janet M. Brown, Ph.D., Dean

Professors J. M. Brown, T. Kessler, Pepa; Associate Professors Mauk, Schmidt; Adjunct Assistant Professors Alverson, Brandy, Cory, Ehrman, Koch, Kurtz, Lemley, Zentz.

The College offers a four year curriculum leading to the Bachelor of Science in Nursing degree.

The College also admits transfer students and registered nurses who want to earn a baccalaureate degree. Registered nurses, accelerated, and transfer students may complete the requirements for the Bachelor of Science in Nursing degree in less than four years.

RN students enrolled in the RN-MSN program may complete the BSN and MSN degree in less than three years. Acceptable transfer credit hours from another college or university and credit by examination may be applied toward required and elective credit hours. The transitional course, NUR 275, is required for registered nurses. The BSN, accelerated BSN, RN-BSN, and RN-MSN plans of study are in Valparaiso University's *Student Guide to University Life*.

Mission. The College prepares critically inquiring, competent professional nurses who embrace truth and learning and who respect Christian values while promoting health for persons in dynamic health care environments.

Purpose and Objectives. The purpose of the College of Nursing is to prepare beginning and advanced professionals of nursing and to provide an educational base for graduate study based on professional standards. The BSN graduate will:

1. Enter the profession as a critically inquiring competent professional nurse who uses the processes of critical thinking, communication, change, and lifelong learning.
2. Engage in the role components of provider of care, teacher, manager, and research consumer wherever persons live, work, play, and/or worship.
3. Appreciate how the environmental influences of culture, economics, ethics, law, politics, and technology impact a person's health.
4. Promote the health of persons in dynamic health care environments using primary, secondary, and tertiary prevention strategies.

In accordance with the philosophy of Valparaiso University, the faculty of the College believes its responsibility is to foster intellectual, emotional and spiritual growth of the student as an educated person and as a competent professional nurse. The curriculum, therefore, includes a wide variety of foundation courses in the natural and social sciences and the liberal arts as well as courses related to the principles and practice 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 students to the following requirements:

A. Nursing. A minimum of 63 credit hours in nursing. Courses in which the student is required to earn a grade of C (2.0) or better are:

NUR 201 Professional Role in Nursing	3 Cr.
NUR 203 Health Assessment	3 Cr.
NUR 210 Therapeutic Interventions for the Professional Nurse	4 Cr.
NUR 212 Introduction to Community-Based Nursing and Health Promotion	3 Cr.
NUR 318 Global Health Issues	3 Cr.
NUR 325 Nursing Care of the Childbearing Family	5 Cr.
NUR 341 Psychiatric Mental Health Nursing	5 Cr.
NUR 351 The Aging Process	3 Cr.
NUR 354 Nursing Care of Adults I	5 Cr.
NUR 356 Nursing Care of Adults II	5 Cr.
NUR 415 Introduction to Nursing Research	3 Cr.
NUR 425 Nursing Care of the Childbearing Family	5 Cr.
NUR 458 Complex Health Care Needs of Adults	4 Cr.
NUR 460 Public Health Nursing	5 Cr.
NUR 470 Management and Leadership Strategies for the Professional Nurse	3 Cr.
NUR 480 Professional Role Practicum	5 Cr.
Total	64 Cr.

B. Arts and Sciences. A minimum of 51 credit hours from the College of Arts and Sciences is required. Courses in which the student is required to earn a grade of C (2.0) or better are marked with an asterisk*. The specific requirements are:

CORE 110 The Human Experience	5 Cr.
CORE 115 The Human Experience	5 Cr.
THEO 200 The Christian Tradition	3 Cr.
THEO Upper Level Course	3 Cr.
PE 100 Healthy Lifestyles	1 Cr.
Humanities Elective	3 Cr.
CHEM 111, 121, or 131 General Chemistry*	4 Cr.
BIO 151 and 152 Human Anatomy & Physiology I, II*	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	48 Cr.

C. Electives. In addition to meeting the requirements in Nursing and Arts and Sciences listed previously, the student must present for graduation a sufficient number of electives to bring the total number of credit hours to 124. No more than 6 credits may be baccalaureate nursing credits.

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 the College of Nursing. Freshman students who have declared nursing as a major will be admitted directly into the nursing program.

The minimum criteria for admission into the Accelerated Bachelor of Science in Nursing option is a cumulative 3.0 grade point average in previous college course work, completion of all science prerequisite courses, and a minimum of 60 transfer credits.

Associate degree and diploma graduates are eligible for admission to the RN-BSN degree program if they are licensed as a registered nurse in Indiana. Registered nurses are eligible for admission to the RN-MSN option if they have a 3.0 grade point average in at least 51 credits of prerequisite course work.

E. Progression. Students are required to present annually, beginning in NUR 203, evidence of a recent (within the year) physical examination, current immunization (rubeola and HBV included), rubella titer, Mantoux test, current CPR certification or recertification, a criminal background check, and a negative drug screen. Drug screening can be requested randomly. The College of Nursing does not make arrangements for meeting these requirements.

Students must maintain a minimum cumulative grade point average of 2.50 in all course work and 2.50 in the required nursing courses in the nursing major to remain in the College of Nursing. Students must earn a grade of C (2.0) or better in courses designated in sections A and B (*) of Graduation Requirements.

Dismissal from the College of Nursing occurs when a student earns a grade of less than 2.0 in any two of the following courses: required courses with a nursing number, BIO 151, BIO 152, BIO 210, and CHEM 111. No nursing course may be repeated more than once.

All nursing students are required to take a series of evaluative achievement tests throughout their nursing coursework. The fee is currently \$400 payable when registered for NUR 201, but is subject to change.

Minor. A nursing student may declare a minor in another college 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.

Course Intensification. A College of Nursing student may propose a special project for earning one extra credit in one nursing course in which they are enrolled in a given semester. College of Nursing students may use only 6 credit of nursing courses toward the required 12 elective credits for the Bachelor of Science in Nursing degree.

The following regulations pertain to this option for a student:

1. Student must have a nursing gpa of 2.7 or above.
2. The course must be offered in the College of Nursing for 3 or more credits.
3. Student must meet with the academic advisor to determine if course intensification is appropriate. The initiative and responsibility for developing a satisfactory proposal lie with the student.
4. Student must obtain the advisor's signature on the Petition to Intensify a Course.
5. Student must submit a one-page proposal for the intensification project and the Petition to the instructor of the course for approval.
6. Student must submit the approved proposal for the intensification project and the Petition to the Dean for approval.

Student Nurses Association. All student nurses are invited to join 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.

Commission on Collegiate Nursing Education (CCNE). The College of Nursing is accredited by the Commission on Collegiate Nursing Education, One Dupont Circle, NW, Suite 530, Washington, DC, 20036-1120; phone 202-887-6791; <www.aacn.nche.edu>.

Note: Students are responsible for transportation to and from all clinical and community 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 are at least sophomore standing, completion of BIO 151, BIO 152, and CHEM 111, and a cumulative grade point average of 2.50 or above.

NUR 201. Professional Role in Nursing.
Cr. 3. An overview of professional nursing practice, analyzing the concepts of person, health, nursing, and environment. Explores the expanding role of the professional nurse including provider of care, teacher, manager, and research consumer. Students develop communication skills used in professional nursing.

NUR 203. Health Assessment.
2+1, Cr. 3. Clinical practice in assessment skills of persons across the life-span. Emphasis is placed on those communication and psychomotor techniques that are fundamental for an organized and comprehensive health assessment relating to the nursing process.

NUR 210. Therapeutic Interventions for the Professional Nurse.
2+2, Cr. 4. An introduction to the concepts and principles of therapeutic and pharmacological interventions applied by the professional nurse in a dynamic health care environment.
Prerequisites: NUR 201 and 203.

NUR 212. Introduction to Community-Based Nursing and Health Promotion.
2.5+0.5, Cr. 3. Focuses on health promotion and the influence of diversity among persons living within the United States. This course is open to

all university students with a sophomore standing or above and could be of benefit to students considering careers in theology, psychology, church work, social work, medicine, occupational or physical therapies. A service learning component is included that will provide experiences in interfaith community-based health promotion activities. This course may be used to fulfill the U.S. Diversity component of the General Education Requirements.

NUR 275. Transition to Professional Nursing.
Cr. 3. Concepts relevant to professional nursing are discussed and applied. Explores the expanding role of the professional nurse including provider of care, teacher, manager, and research consumer while emphasizing the process of communication, critical thinking, change, and lifelong learning. Prerequisite: RN licensure in Indiana.

Note: Prerequisites for the following courses are NUR 201, 203, 210, and 212, BIO 210 and a cumulative and nursing grade point average of 2.5 or above.

NUR 318. Global Health Issues.
Cr. 3. Provides the student with the opportunity to explore cultural, economic, ethical, political, social, and technological issues in health care from a global perspective. The course will include a comparative analysis of selected health care delivery systems from around the world. This course is open to all university students with sophomore standing or above. May be used to fulfill the Cultural Diversity course component of the General Education requirements.

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 a self-help framework. Emphasis is placed on the promotion and support of women's involvement in decision making and responsibilities for their health. No prerequisites. Open to all students. May be used for the Gender Studies Minor.

NUR 325. Nursing Care of the Childbearing Family.
3+2, Cr. 5. The study and practice of professional nursing with a focus on childbearing women, families, and newborns at all levels of prevention. Emphasis is placed on a family-centered approach in community settings.

NUR 341. Psychiatric Mental Health Nursing.
3+2, Cr. 5. The application of psychiatric mental health nursing principles in the care of persons who have been impacted by psychiatric

disturbances. Using psychobiological and behavioral theories and therapeutic communication skills, emphasis is placed on the promotion of optimal mental health functioning for individuals, families, and communities.

NUR 351/551. The Aging Process.
2.5+0.5, Cr. 3. An introduction to the theories and various dimensions of aging. Normal biological aging and health issues facing the elderly will be explored. Attitudes and expectations about aging will be discussed. Service learning activities will promote a holistic understanding of the aging process. This course is open to all university students, sophomore standing and above is recommended. Includes a service learning component.

NUR 354. Nursing Care of Adults I.
3+2, Cr. 5. Concentrates on the development of professional nursing practice with adults experiencing acute and chronic changes in health. Emphasis is placed on meeting the health needs of these adults and their families in a variety of environments at all levels of prevention.

NUR 356. Nursing Care of Adults II.
3+2, Cr. 5. A continuation of Nursing Care of Adults I. Concentrates on the development of professional nursing practice with adults experiencing acute and chronic changes in health. Emphasis is placed on meeting the health needs of these adults and their families in a variety of environments at all levels of prevention. Prerequisite: NUR 354.

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 210 and approval of the Dean. May be taken on S/U 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: determined by the instructor. Selected topics offered to non-nursing majors. May be taken on the SU grade basis.

NUR 395/495. Independent Study in Nursing.
Cr. 1-6. Independent study of a selected topic. Prerequisite: determined by the instructor. May be taken on S/U basis. Prerequisite: approval of the Dean of the College.

Note: Prerequisites for the following courses are NUR 325, 341, 354, 356 (or 275) and a cumulative and nursing grade point average of 2.5 or above.

NUR 415. Introduction to Nursing Research.

Cr. 3. An overview of scientific research as applied to nursing and the role of the professional nurse as a research consumer. The course includes the study of the research process and implications of findings for evidenced-based nursing practice. Prerequisite: PSY 201 or equivalent.

NUR 418/518. Integrative Medicine: A Global Perspective.

Cr. 3. Students explore approaches to healing and health used by various world cultures and considered alternative to traditional Western medicine. Emphasis is placed on the philosophical, theological, and cultural foundations of these healing strategies. Research and health policy issues associated with these approaches are also discussed. Prerequisite: sophomore standing. Open to all students. May be used to fulfill the Cultural Diversity course component of the General Education requirements.

NUR 425. Nursing Care of the Childrearing Family.

3+2, Cr. 5. The study and practice of professional nursing care of children in a variety of settings. Using a family-centered approach, students engage with children and their families at all levels of prevention. Prerequisite: PSY 201 or equivalent.

NUR 452/552. Introduction to Case Management.

Cr. 3. An introduction to case management in health care. Content includes the role of the case manager, models of case management, the case management process, standards of practice, and outcome management. A field experience with a case manager in an acute care setting is required (8 hours). Prerequisite: senior standing.

NUR 454/554. Integrating Case Management into Practice.

Cr. 3. A study of the knowledge and skills necessary to implement the case manager role along the continuum of care. Community resources, the assessment of client support

systems, reimbursement systems, cost analysis, networking knowledge, legislative and policy issues, and certification requirements are addressed. A field experience with a case manager in a non-acute care setting is required (8 hours). Prerequisite: NUR 452.

NUR 458. Complex Health Care Needs of Adults.

2.5+1.5, Cr. 4. This course focuses on the application of professional nursing interventions necessary to care for adults experiencing complex health needs. Emphasis is placed on meeting the multiple requisites of these adults and their families in rehabilitation and critical care settings.

NUR 460. Public Health Nursing.

3.5+1.5, Cr. 5. Focuses on the roles of the public health nurse in providing care at all levels of prevention to individuals, families, and aggregates at home and in other community settings. Emphasis is placed on the synthesis of knowledge in nursing, public health, humanities, and sciences as students apply the nursing process to promote and preserve the health of a community and its members. Students will have the opportunity to explore the role of the public health nurse as a member of an interdisciplinary health care team.

NUR 470. Management and Leadership Strategies for the Professional Nurse.

Cr. 3. An overview of management and leadership theories as applied by professional nurses in health care environments. Organizational, fiscal, and marketing concepts relevant to health care delivery are explored. Synthesis of the role components of the professional nurse and strategies for managing a career are emphasized.

NUR 480. Professional Role Practicum.

1+4, Cr. 5. A course which facilitates the transition from student to beginning professional nurse. Within a clinical setting, students integrate knowledge from nursing and the arts and sciences to assist persons to achieve health. Only offered on S/U basis. All degree requirements must be met prior to beginning clinical practicum experience. Spring corequisite: NUR 458 and NUR 460; Summer corequisite: NUR 470.

INTERDISCIPLINARY PROGRAMS

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.

Interdisciplinary Minors. The interdisciplinary minors in this section may be presented in partial fulfillment of the Major Field Requirements for the Bachelor of Arts degree (see page 46).

Restrictions for Interdisciplinary Minors. 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. This restriction does not apply to majors or minors in the College of Engineering and the College of Business Administration.

Interdisciplinary Majors. The interdisciplinary majors offered in the College of Arts and Sciences lead to the Bachelor of Arts or Bachelor of Science degree. These include Actuarial Science (page 59), American Studies (page 61), Chinese and Japanese Studies (page 74), Environmental Science

(page 102), International Economics and Cultural Affairs (page 128), International Service (page 130), Modern European Studies (complementary major only - page 140), Pre-Seminary Studies (complementary major only - page 165), Youth, Family, and Education Ministry (complementary major only - page 187).

Restrictions for Interdisciplinary Majors. A student may combine an additional major or minor with an interdisciplinary major. If there are overlapping courses, the following restrictions apply. An additional major requires at least four courses of at least three credits each beyond those courses in the interdisciplinary major. An additional minor requires at least two courses of at least three credits each beyond those courses in the interdisciplinary major.

An administrative committee for an interdisciplinary major or minor may set further restrictions for their major or minor if desired.

Applied Statistics

Minor

Administrative Committee:
 Professors Ozgur (Information and Decision Sciences), Strasser (Information and Decision Sciences);
 Associate Professors Hull (Mathematics and Computer Science, Chair), 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 minimum 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 a 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:

IDS 205 Business Statistics or	
MATH 240 Statistical Analysis	3 or 4 Cr.
IDS/MATH 340 Statistics for Decision Making or	
ECON 325 Econometrics	3 Cr.
CS 325 Simulation and Modeling or	
IDS 320 Management Science	3 Cr.
MATH 344 Applied Probability and	
Statistical Decision Theory	3 Cr.
ECON/IDS/MATH 493 Seminar in	
Applied Statistics	3 Cr.

Information and Decision Sciences majors may not use IDS 320 or IDS/MATH 340 to fulfill the minor requirements.

The Applied Statistics minor is not available to Actuarial Science majors.

Business

Administration Minor

Administration. This program is administered by the College of Business Administration.

Objective. This minor is intended for students who plan to complete a Master in Business Administration degree in the future or who desire a more advanced preparation in a business minor than is provided by the Liberal Arts Business Minor. This is a comprehensive business minor covering all the major areas of course work to prepare one for entering a masters program. Students intending to transfer into the College of Business Administration need another math course in addition to these courses and the math course taken as a prerequisite for IDS 205.

Requirements. A total of 31 credit hours is required to complete this minor.

Required Courses

ACC 205 Financial Accounting	3 Cr.
ACC 206 Managerial Accounting	3 Cr.
BLAW 104 Legal Environment of Business . .	3 Cr.
ECON 221 Principles of Economics - Micro . .	3 Cr.
ECON 222 Principles of Economics - Macro . .	3 Cr.
IDS 205 Business Statistics	3 Cr.
FIN 304 Financial Management	3 Cr.
MGT 304 Management and Organizational	
Behavior	3 Cr.
MKT 304 Marketing Management	3 Cr.

MATH 122 or 124 or 131 or 151 is a prerequisite for IDS 205. MATH/IDS 340 may be substituted for IDS 205.

Environmental Studies Minor

Administrative Committee: Professors Arkkelin (Psychology), Caristi (Mathematics and Computer Science), Janke (Geography and Meteorology); Associate Professors Aljobeh (Civil Engineering), Eberhardt (Biology), Luther (Mathematics and Computer Science, Chair), Shingleton (Economics); Assistant Professor Schoer (Chemistry).

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 minimum of 20 credit hours is required to complete this minor.

Required Courses

One of the following	4 Cr.
BIO 172 Diversity of Life (No prerequisite with instructor's approval)	
CHEM 111 Introduction to Chemistry	
GEO 104 Geomorphology	
BIO 250 Human Environmental Biology or GEO 260 Environmental Conservation	3 Cr.
ECON 210 Environmental Economics and Policy	3 Cr.
PHIL 230 Environmental Philosophy and Ethics	3 Cr.
One of the following	3 Cr.
ENGL 365 Topics: Environmental Literature	
ENVS 340 Water Resources Science and Management	
GEO 204 National Parks	
PSY 355 Environmental Psychology	
THEO 340 Ecology, Justice and Faith	
One Field Studies Course	3-4 Cr.
BIO 350 Field Biology (3 cr.)	
BIO 440 Ecology (4 cr.)	
GEO 385 Field Study (Biogeography or Environmental - 3 cr.)	
ENVS 499 Colloquium on Environmental Science and Management	1 Cr.
Total program requirement	20-21 Cr.

Note: No more than two courses for this minor may overlap with other requirements whether within general education or within requirements for any majors or other minors. Other appropriate topics courses may be substituted for requirements with the approval of the Chair.

Ethnic Studies Minor

Administrative Committee: Professors Berg (History), Janke (Geography and Meteorology, Chair); Associate Professors Venturelli (Sociology and Criminology).

Objectives. The Ethnic Studies Minor offers an interdisciplinary perspective on race, ethnicity, and culture, specially 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 or ENGL 365 American Ethnic Literature	3 Cr.
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Elective Courses

ECON 233 Economics of Race and Gender	3 Cr.
ENGL 365 Fiction by American Women (designated sections)	3 Cr.
GEO 200 American Ethnic Geography	3 Cr.
GEO 274 North American Indian on Film	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 Vulnerable Populations: Color, Gender, and Orientation	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	3Cr.
THEO 353 Studies in Theology and Practice (when topic is appropriate)	3Cr.
THEO 368 Native American Religions	3Cr.

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:
 Professors Byrne (English), Juneja (English), Kennedy (Philosophy), Morgan (Christ College), Sponberg (English), Trost (Political Science, Chair).

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	3Cr.
At least one course from each of the following three areas	9Cr.
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 social-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:
 Professors Dooley (Law), J. Moore (Theology); Associate Professors Burow-Flak (English), M. Corazzo (Art), Sandock (English), Seguin (History), Shingleton (Economics), van Doorn-Harder (Theology); Lecturer Leeb (Theology, Chair).

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 . . . 3Cr.

Social and Life Sciences

ECON 233 Economics of Race and Gender . . 3Cr.
 PSY 390 Topics (when appropriate) 3Cr.
 SOCW 210 Social Welfare: Policy and Services 3Cr.
 SOCW 330 Vulnerable Populations: Color, Gender and Orientation 3Cr.
 SOCW 390 Colloquium (when appropriate topic) 3Cr.
 SOC 220 The Family 3Cr.
 SOC 275 Systems of Social Stratification . . . 3Cr.
 SOC 340 Gender 3Cr.
 NUR 322 Women and Their Health 3Cr.

Humanities and Fine Arts

ART 311 Art History and Feminism 3Cr.
 ART 318 Nineteenth Century European Art . . 3Cr.
 COMM 145 Interpersonal Communication . . . 3Cr.
 ENGL 390 Topics (when appropriate) 3Cr.
 THEO 317 The New Testament in Its Cultural Environment 3Cr.
 THEO 326 History of Women in the Church . . 3Cr.
 THEO 343 Theology of Marriage and Sexuality 3Cr.
 CC 300 Love and Friendship 3Cr.
 CC 300 Inventing the Body 3Cr.
 CC 300 Faith and Feminism 3Cr.

GNST 201. Introduction to Gender Studies.
 Cr. 3. An introductory course exploring the issues in gender construction within our society together with the ways that gender issues have affected the various disciplines within the university. This course is intended to introduce the student to the gender studies minor as a foundation for studying the issues related to gender in the other courses included in the minor.

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:
 Professor Pepa (Nursing, Chair);
 Associate Professors G. Evans (Biology), Mauk (Nursing), Nelson (Psychology).

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, psychological, and spiritual dimensions, as well as the role of the older individual in society. It is the premise of the program that these changes are best understood and explored in an interdisciplinary context. As the average human life-span increases 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 social or biomedical sciences or theology 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 9 credit hours of core courses, (one course from each area designation), the student must complete an additional 9 credit hours of electives from any of the courses listed. Students wishing to use a course not listed to meet elective requirements for the minor must have the course approved by the Administrative Committee prior to enrolling in the course.

Students are to choose one course from each of the following designated areas an additional 9 credits from the list of courses.

Aging, Behavior, and Society

PSY 332 Psychology of Adulthood and Aging 3Cr.
 PSY 475 Human Neuropsychology 3Cr.
 SOC 327 Aging in American Society 3Cr.

Aging and Religious Faith

THEO 353 Studies in Theology and Practice (when appropriate) 3Cr.
 THEO 358 Studies in Theology, Health and Healing (when appropriate) 3Cr.
 THEO 359 Theology of Aging 3Cr.

Aging and Health

NUR 318 Global Health Issues	3Cr.
NUR 351 The Aging Process	3Cr.
NUR 390 Issues at End of Life	3Cr.

Elective Courses

BIO 260 Human Nutrition	3Cr.
SOC 220 The Family	3Cr.
SOC 390 Issues in Sociology (when appropriate)	3Cr.
THEO 341 Introduction to Biomedical Ethics	3Cr.

**Liberal Arts Business
Minor**

Administrative Committee:
Associate Professor Pirie (Finance,
Co-Chair), David Schroeder
(Information and Decision Sciences),
Shingleton (Economics), Stieger
(Physical Education, Co-Chair).

Objective. The objective of the Liberal Arts Business Minor is to introduce nonbusiness majors to the functional areas of business administration. This program is especially appropriate for students who plan to enter the job market after graduation with a traditional major from the College of Arts and Sciences.

Required Courses

ECON 221 Economics - Micro	3Cr.
ACC 205 Financial Accounting	3Cr.
BLAW 104 Legal Environment of Business	3Cr.
FIN 304 Financial Management	3Cr.
MGT 304 Management and Organizational Behavior	3Cr.
MKT 304 Marketing Management	3Cr.
One course from the following:	3Cr.
ECON 222 Economics - Macro	
ENGL 300 Introduction to Professional Writing	
MATH 240 Statistical Analysis	
PSY 201 Statistical Methods	
SOC 321 Data Analysis	
ACC 206 Managerial Accounting	
IDS 205 Business Statistics	
CE 202 Statistical Applications in Civil Engineering	
ECE 365 Probability and Statistics for Electrical and Computer Engineers	

Arts and Sciences students who are considering the possibility of becoming Business Majors must take the prerequisite courses in mathematics, statistics, etc., in order to qualify for admission to the College of Business Administration.

Students who intend to complete the Liberal Arts Business Minor are strongly

encouraged to consult with the office of the Dean of the College of Arts and Sciences to obtain proper advising.

The 15-18 credits earned in the courses offered by the College of Business Administration may be applied toward the 124 required for graduation with a Bachelor's degree in the College of Arts and Sciences (see page 50).

Upon completion of the minor, the designation, " Liberal Arts Business Minor," is placed on the student's transcript.

**Manufacturing
Management Minor**

Administrative Committee:
Professors Ozgur (Information and Decision Sciences, Co-Chair), Schoech (Mechanical Engineering, Co-Chair); Assistant Professors Bai (Information and Decision Sciences), Duncan (Mechanical Engineering).

Objectives. This interdisciplinary minor program is designed to provide the opportunity for students to focus their study in manufacturing planning and control. It prepares students for entry-level positions in manufacturing and the related areas of quality control, product design and development, production system design, and production scheduling and control. It complements a student's major area of study in engineering, business, mathematics, computer science, or other disciplines.

Administration. This minor is jointly administered by the College of Engineering and the College of Business Administration.

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 advisor and a member of the minor administrative committee 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 advisors to determine which requirements these other courses fulfill.

Interdisciplinary Programs

Students must complete the following courses:

IDS 305 Production/Operations Management	3Cr.
IDS 320 Management Science	3Cr.
IDS/MATH 340 Statistics for Decision Making	
or ACC 320 Cost Accounting	
or IDS 430 Global Operations and Supply-Chain Management	
or ME 456 Manufacturing System Design	3Cr.
ME 253 or ME 354 Manufacturing Processes	4Cr.
ME 457 or ME 458 Product and Production System Design	3Cr.

Mechanical Engineering and Information and Decision Sciences majors may not use IDS/MATH 340 or IDS 430 to fulfill the minor requirements.

Three credits of these courses may not be used to satisfy any of the minimum credit hours required for the completion of an engineering degree and may not be used to satisfy any other major or minor requirements. For mechanical engineering majors, ME 253 is required and both ME 456 and ME 458 may also be used to satisfy the mechanical engineering electives requirement.

Peace and Social Justice Studies Minor

Administrative Committee:
 Professors Baas (Political Science);
 Associate Professors Geiman (Philosophy, Chair) Kingsland (Political Science), Ringenberg (Social Work), Winquist (Psychology);
 Assistant Professor Yogan (Sociology and Criminology).

Objectives. Valparaiso University nurtures a community whose members learn to embody social responsibility. The community challenges its members to discover ways of using their abilities in the service of the whole human family. The Peace and Social Justice Studies Minor is an interdisciplinary program focusing on social responsibility by examining the means of establishing justice, achieving peace, and resolving conflicts nonviolently. Peace rooted in justice requires the nurturing of a culture of peace in homes, schools, communities, religious institutions, nations,

and across the world. Peace rooted in justice requires teaching peace and social justice to cultivate those who will become socially responsible leaders.

Requirements. A minimum of 15 credit hours (usually five courses) is required for this minor. Each student must take PSJ 201, PSJ 386, and three courses (9 credits) appropriate to the chosen track with no more than two courses from specified General Electives. No more than two courses from either track or general electives can be taken from a single department. No more than one course at the 100 level may be taken as an elective.

There are two alternative tracks in the program. The International/Global Track concentrates on social responsibility between nations and other large groups, while the Individual/Local Track focuses on social responsibility among individuals, small groups and communities.

Program Core (Required)

PSJ 201 Principles of Peace and Social Justice	3Cr.
PSJ 386 Internship in Peace and Social Justice Studies	3Cr.

International/Global Track

HIST 331 Ideas and Power in Latin American History	3Cr.
HIST 350 Colonialism and Independence: Understanding Modern Africa	3Cr.
HIST 355 Modern Middle Eastern History	3Cr.
POLS 230 International Relations	3Cr.
THEO 338 Holocaust Theology	3Cr.
THEO 357 The Church in the World	3Cr.
THEO 360 Topics in the History of Religions	3Cr.
THEO 362 Understanding Islamic Religion and Culture	3Cr.
THEO 364 The Buddhist Tradition	3Cr.

Individual/Local Track

ECON 136 The Economics of Health, Education, and Welfare	3Cr.
ECON 233 The Economics of Race and Gender	3Cr.
HIST 225 Alternative Perspectives of United States History	3Cr.
HIST 226 The Hispanic U.S.	3Cr.
POLS 340 Constitutional Law I	3Cr.
POLS 345 The Judicial Process	3Cr.
SOC 130 The Criminal Justice System	3Cr.
SOC 160 Contemporary Social Problems	3Cr.
SOC 265 Crime and Society	3Cr.
SOC 275 Social Stratification	3Cr.
SOC 347 Race and Ethnicity	3Cr.
SOC 360 Penology	3Cr.
SOC 390 Issues in Sociology (when topic is appropriate)	3Cr.
SOCW 330 Vulnerable Populations: Color, Gender, and Orientation	3Cr.
THEO 320 Topics in Christian History (when topic is appropriate)	3Cr.

THEO 330 Topics in Contemporary Theology (when topic is appropriate)	3Cr.
THEO 337 Black Theology and Black Church	3Cr.
THEO 353 Studies in Theology and Practice	3Cr.

General Electives

PHIL 250 Political Philosophy	3Cr.
POLS 250 Political Philosophy	3Cr.
POLS 361 Public Policy	3Cr.
POLS 490 Seminar: Mediation and Arbitration	3Cr.
PSY 125 Social Psychology	3Cr.
PSY 390 Topic: Cross Cultural Psychology	3Cr.
THEO 318 Jesus and the Gospels	3Cr.
THEO 346 Contemporary Moral Issues	3Cr.

Several other courses, offered as topics courses and seminars, will be publicized when approved by the administrative committee. A student who wishes to include a course not on the list of electives must obtain the approval of the administrative committee before enrolling in that course.

PSJ 201. Principles of Peace and Social Justice.
Cr. 3, This course focuses on social responsibility by examining the means of establishing justice, achieving peace, and resolving conflicts nonviolently. The causes, nature, and processes of conflict are reviewed. That conflicts are frequently rooted in injustice requires an understanding of the nature of social justice. These injustices may arise from economic, political, sociological, religious, and/or psychological sources. The nature and methods of nonviolent conflict resolution and reconciliation are also considered. This course is intended to introduce students to the peace and social justice minor as a foundation for studying these issues as they are treated in the other courses included in this program. At the end of this course, students will decide whether they wish to pursue either the International/Global Track or the Individual/Local Track of the program.

PSJ 386. Internship in Peace and Social Justice Studies.
Cr. 3. The chair of the minor will assist in arranging an appropriate internship for the track chosen. Prerequisite: Approval of the advising instructor and consent of the program chair.

Political Communication Minor

Administrative Committee:
Professors Baas (Political Science, Chair); Associate Professors Kocher (Communication), Neff (Communication).

Objectives. 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:

- COMM 269 Communication Law and Ethics . . . 3Cr.
- One of the following:
 - COMM 350 Political Communication . . . 3Cr.
 - COMM 351 Human Influence in Communication 3Cr.
- One of the following:
 - POLS 120 The Government of the United States 3Cr.
 - POLS 220 State and Local Politics in the United States 3Cr.
- Two of the following:
 - POLS 270 Political Behavior 3Cr.
 - POLS 326 The Presidency 3Cr.
 - POLS 327 Congress 3Cr.
 - POLS 345 The Judicial Process 3Cr.
- One of the following (3 credits):
 - COMM 386 Internship 3Cr.
 - POLS 386 Internship in Political Science 3Cr.

Urban Studies Minor

Administrative Committee:
 Professors Baas (Political Science),
 Janke (Geography and Meteorology);
 Associate Professors Longan
 (Geography and Meteorology, Chair),
 Shingleton (Economics), Venturelli
 (Sociology); Adjunct Assistant
 Professor Yogan (Sociology and
 Criminology).

Objectives. The Urban Studies Minor provides students with an interdisciplinary consideration of the diverse social, cultural, economic, political, and spatial issues confronting contemporary American cities. The majority of the minor is comprised of an experiential semester in one of America's largest and most diverse metropolitan areas—Chicago. This program involves living, learning, and working in the city and offers opportunities for students in a wide range of programs, from art to economics to premed. The goal of the minor is to enhance students' career opportunities, particularly through the internship, while equipping them to contribute meaningfully to public life and discourse.

Requirements. A minimum of 19 credit hours constitutes the minor. Each student must complete the Chicago Urban Semester and one elective course.

Chicago Urban Semester

GS 338 The Core Course	4 Cr.
GS 348 The Seminar	4 Cr.
GS 386 The Internship	4 Cr.
GS 395 Independent Study	4 Cr.

Elective Courses

ECON 335 Urban Economic Problems	3 Cr.
GEO 320 Urban Geography	3 Cr.
GEO 321 Urban and Regional Planning	3 Cr.
HIST 327 History of Chicago	3 Cr.
POLS 220 State and Local Politics	3 Cr.
POLS 320 Urban Politics	3 Cr.
SOC 325 Urban Sociology	3 Cr.

A student may substitute an appropriate topics course or departmental seminar in place of one of the elective courses listed above, provided the topic has an urban focus and is approved by the chair of the administrative committee prior to the student's enrolling in the course.

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

GS 338. The Core Course: Public Policy in an Urban Center.

Cr. 4. A survey of three or four important urban policy areas giving special attention to issues being publicly discussed during the current semester. The course relies on presentations by individuals actively involved with the topic at hand, selected to provide different and sometimes contradictory perspectives. The policy areas are selected from among the following: health care, urban politics, neighborhood development, mass transportation, public education and municipal finance. S/U grade.

GS 348. The Seminar.

Cr. 4. Each student chooses one urban issue to examine in depth in a seminar involving readings, class discussions and field visits. Topics represent a range of academic disciplines, usually making it possible to select a seminar relating to a major. Recent seminar titles included City Politics, Urban Planning, Arts in the Black Community, Sexism and Racism, The Helping Professions, Dynamics of Urban Housing. Graded A-F.

GS 386. The Internship.

Cr. 4. Each student devotes 15 hours per week to an agency which can provide direct involvement in city life and exposure to a particular career environment. The placement is determined jointly by the student and staff during the first week of the semester. A wide range of placements is available. Graded either A-F or S/U at the student's choice upon entry into the program.

GS 395. Independent study Project.

Cr. 4. Each student pursues one topic from the Chicago experience under the supervision of a faculty member. Some projects grow out of the Internship whereas others are based on another component of the program. The student may elect to write a research paper or a creative piece, or to use photographic or other visual media. Graded A-F.

All sophomores, juniors and seniors at the University are eligible to participate in this program. Students shall be admitted to this program on the recommendation of the Urban Studies Advisory Committee.

Valparaiso University students register at Valparaiso for the Chicago Urban Semester and pay to Valparaiso University the general fee charged of all full-time students.

Expenses for travel, meals and lodging are paid directly by the students. Full credit toward graduation is given for all courses taken in the Urban Studies program. The program is offered in both the fall and the spring semesters.

RESERVE OFFICER TRAINING CORPS

The University offers two programs for the Reserve Officer Training Corps, one for the Air Force and one for the Army. Both programs are administered by Professor Alan Kraft. A Military Leadership Minor is available to cadets in either program. The Military Leadership Minor will not fulfill any graduation requirements at Valparaiso University, but is intended to recognize students who complete the ROTC Program.

Use of ROTC Credit Toward Graduation Requirements. The policy of applying ROTC credit toward degree requirements varies from college to college.

The College of Arts and Sciences will grant up to six (6) credits of ROTC coursework for free electives only.

The College of Business Administration will grant credit as follows:

- Upon the completion of the military Leadership Minor–Air Force, then credit earned for AS 312, Air Force Leadership Studies (Cr. 3) will be considered equivalent to credit for MGT 315, Leadership and Interpersonal Skills (Cr. 3).
- Upon the completion of the Military Leadership Minor–Army, then credit earned for MS 301, Leadership and Problem Solving (Cr. 2) and MS 416, Military History: Strategy and Tactics (Cr. 1) will be considered equivalent to credit for MGT 315, Leadership and Interpersonal Skills (Cr. 3)
- Credit toward graduation in the College of Business Administration will be granted up to the maximum number of elective credits required in the B.S.A. or B.S.B.A. degrees.

The College of Engineering policy varies by major.

- Civil Engineering will grant six (6) credits of ROTC coursework toward Career Enhancement Electives.

- Computer Engineering will grant six (6) credits of ROTC coursework toward Professional Electives.
- Electrical Engineering will grant up to nine (9) credits of ROTC coursework toward the two professional electives (6 credits) and the free elective (3 credits).
- Mechanical Engineering will grant up to three (3) credits of ROTC coursework toward free electives,

The College of Nursing will grant twelve (12) credits of ROTC coursework toward the 12 elective credits required for the B.S.N. degree

MILITARY LEADERSHIP MINOR - AIR FORCE

Valparaiso University has an enrollment agreement with the University of Notre Dame enabling Valparaiso University students to participate in their Air Force ROTC program.

The Air Force Reserve Officer Training Corps (ROTC) is an educational program designed to give men and women the opportunity to become an Air Force Officer while completing a degree. The Air Force ROTC Programs develop leadership and management skills that students need to become leaders in the twenty-first century. In return for challenging and rewarding work, the Air Force offers the opportunity for advancement, education and training, and the sense of pride that comes from serving one's country. Upon completion of the Air Force ROTC program, students are commissioned as second lieutenants in the Air Force. Following commissioning there are excellent opportunities for additional education in a wide variety of academic fields.

Course numbers ending in 11 are taught during the fall semester; course numbers

ending in 12 are taught during the spring semester. Leadership Laboratory is open to students who are members of ROTC or who are eligible to pursue a commission.

Objectives. This minor is available to all students who are choosing to complete the Air Force Reserve Officers Training Corp (AFROTC) Program.

Requirements. A minimum of 16 credit hours of Aerospace Leadership classes constitutes the minor. Students must satisfy course prerequisites. All of the following AS courses must be completed.

AIR FORCE ROTC COURSES

AS 111. The Foundations of the U.S. Air Force.
Cr. 1. A survey course designed to introduce students to the United States Air Force and Air Force ROTC. Featured topics include: mission of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, and an introduction to communication skills.

AS 111L. Leadership Laboratory.
Cr. 0. A study of Air Force customs and courtesies, drill and ceremonies, and military commands. Also includes studying the environment of an Air Force officer and learning about areas of opportunities available to commissioned officers. S/U grade only.

AS 112. The Foundations of the U.S. Air Force.
Cr. 1. Additional study of the organizational structure of the Air Force with emphasis on leadership and communication skills.

AS 112L. Leadership Laboratory.
Cr. 0. A study of Air Force customs and courtesies, drill and ceremonies, and military commands. Also includes studying the environment of an Air Force officer and learning about areas of opportunities available to commissioned officers. S/U grade only.

AS 211. Evolution of U.S. Air Force Air and Space Power.
Cr. 1. A course designed to examine general aspects of air and space power through a historical perspective, covering a time period from the first balloons and dirigibles through the Korean War and into the Cold War era.

AS 211L. Leadership Laboratory.
Cr. 0. Further study of Air Force customs and courtesies, drill and ceremonies, and military commands. Also includes additional emphasis on the environment of an Air Force officer and

learning about areas of opportunity available to commissioned officers. S/U grade only.

AS 212. Evolution of U.S. Air Force Air and Space Power.
Cr. 1. Further study from the Vietnam War to the space-age global positioning systems of the Persian Gulf War. Effective communication techniques are also emphasized.

AS 212L. Leadership Laboratory.
Cr. 0. Further study of Air Force customs and courtesies, drill and ceremonies, and military commands. Also includes additional emphasis on the environment of an Air Force officer and learning about areas of opportunity available to commissioned officers. S/U grade only.

AS 311. Air Force Leadership Studies.
Cr. 3. A study of leadership, management fundamentals, professional knowledge, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied.

AS 311L. Leadership Laboratory.
Cr. 0. Activities classified as leadership and management experiences involving the planning and controlling of military activities of the cadet corps, and the preparation and presentation of briefings and other oral and written communication. Also includes interviews, guidance, and information which will increase the understanding, motivation, and performance of other cadets. S/U grade only.

AS 312. Air Force Leadership Studies.
Cr. 3. Further study of the Air Force personnel and evaluation systems, leadership ethics and additional communication skills.

AS 312L. Leadership Laboratory.
Cr. 0. Activities classified as leadership and management experiences involving the planning and controlling of military activities of the cadet corps, and the preparation and presentation of briefings and other oral and written communication. Also includes interviews, guidance, and information which will increase the understanding, motivation, and performance of other cadets. S/U grade only.

AS 411. National Security Affairs.
Cr. 3. An examination of the national security process, regional studies, advanced leadership ethics, and Air Force doctrine.

AS 411L. Leadership Laboratory.
Cr. 0. Further activities classified as leadership and management experiences involving the planning and controlling of military activities of the cadet corps, and the preparation and presentation

of briefings and other oral and written communication. Also includes interviews, guidance, and information which will increase the understanding, motivation, and performance of other cadets. S/U grade only.

AS 412. National Security Affairs.

Cr. 3. Further focus on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism.

AS 412L. Leadership Laboratory.

Cr. 0. Further activities classified as leadership and management experiences involving the planning and controlling of military activities of the cadet corps, and the preparation and presentation of briefings and other oral and written communication. Also includes interviews, guidance, and information which will increase the understanding, motivation, and performance of other cadets. S/U grade only.

MILITARY LEADERSHIP MINOR - ARMY

Valparaiso University has an enrollment agreement with the University of Notre Dame enabling Valparaiso University students to participate in their Army ROTC program.

As one of the premier Army ROTC programs in the country, the mission is to educate, train, develop, and inspire participants to become officers and leaders of character for the U.S. Army and the nation. The program does this through a combination of classroom instruction, leadership labs, and experiential learning opportunities focused on developing the mind, body, and spirit of participants. These opportunities are designed specifically to enhance character and leadership ability in the students/cadets and to allow them to practice the essential components of leadership: influencing, acting, and improving. Participants become members of the Fightin' Irish Cadet Battalion and complete a planned and managed sequence of classroom courses and practical exercises intended to develop each participant into what an officer must be – a leader of character, a leader with presence, and a leader of intelligence – to enable them to reach their full potential as an individual and as an effective leader of groups. The program affords students an excellent opportunity to serve and focuses on the role of Army officers in the

preservation of peace and national security, with particular emphasis placed on ethical conduct and the officer's responsibility to society to lead, develop themselves and others, and achieve success. The experience culminates ideally with participants earning commissions as Second Lieutenants in the Active Army, Army Reserve, or Army National Guard. As an organization committed to lifelong learning, participants may elect to pursue one of the Army's numerous opportunities for follow-on postgraduate study as well.

Course numbers ending in an odd number are taught during the fall semester; course numbers ending in an even number are taught during the spring semester.

Objectives. This minor is available to all students who are choosing to complete the Army Reserve Officers Training Corp (AROTC) Program.

Requirements. A minimum of 17 credit hours of Military Science classes constitutes the minor (all courses except MS 495).

MS 495 can be substituted for one of the required courses. Students must satisfy course prerequisites.

ARMY ROTC COURSES

MS 101. Foundations of Officership.

Cr. 1. A study of the organization of the Army with an emphasis on understanding and implementing officership, leadership, and the Army values. Military courtesy, discipline, customs, and traditions of the service, fitness, and communication are taught and demonstrated through practical exercise. Includes a 48-hour field training exercise and a weekly two-hour laboratory emphasizing basic soldier skills such as land navigation and marksmanship.

MS 102. Basic Military Leadership.

Cr. 1. A study of functions, duties, and responsibilities of junior leaders. Emphasizes operations of the basic military team to include an introduction to the Army's problem-solving process as well as the fundamentals of time and resource management. Includes a 48-hour field training exercise and a weekly two-hour laboratory emphasizing basic soldier skills such as first aid, U.S. weapons, and military communication.

MS 201. Individual Leadership.

Cr. 2. Study and application of map-reading skills, military communication, and development of individual leadership techniques by learning the fundamentals of small-unit tactical operations. Emphasis on individual physical fitness and

conducting self evaluation to facilitate growth. Includes a 48-hour field training exercise as well as a weekly two-hour laboratory that offers the opportunity to demonstrate learned leadership techniques along with instruction on basic military skills of land navigation and rifle marksmanship.

MS 202. Leadership and Teamwork.

Cr. 2. Study and application of mission planning and orders with an emphasis on small-unit leadership in tactical settings. Land navigation, map-reading, marksmanship, and communication skills will be evaluated. Students are expected to demonstrate that they have mastered basic soldier skills and leadership fundamentals. Includes a 48-hour field training exercise as well as a weekly two-hour laboratory that offers the opportunity to demonstrate learned leadership skills along with advanced instruction on military skills.

MS 301. Leadership and Problem Solving.

Cr. 2. Military decision making, problem analysis, and integrated planning of platoon operations. Analysis of the components of leadership through practical exercises and historical examples. Includes one 48-hour field exercise.

MS 302. Leadership and Ethics.

Cr. 2. Advanced military decision making, problem analysis, and integrated planning with synchronization of multiple assets. This is conducted on the basis of platoon operation and tactics. Includes two 48-hour field exercises.

MS 401. The Professional Officer.

Cr. 2. Advanced study of military leadership and management. Discusses staff organization, functions, and processes. Analyzes counseling methods and responsibilities. Examines organization climate and training management.

MS 402. Military Management.

Cr. 2. Study in the Law of War, Code of Conduct, personnel management, information on awards, separations, promotions, evaluations, assignments, and counseling techniques. Includes pre-commissioning seminars to address current military problems, trends and customs.

MS 414. American Military History I.

Cr. 1. This course is the first part of a two semester survey course with an analysis of American military history from the early American colonial period through the current global war on terrorism. This course is designed to be an exploration into the evolution of modern warfare, with special emphasis on the technological developments, organization adaptations, and doctrinal innovations that have shaped American military from its first conception in 1607 through 1900. The successful completion of MS 414 and MS 415 meets the military history pre-commissioning requirements for U.S. Army ROTC cadets.

MS 415. American Military History II.

Cr. 1. This military history course is the second part of a two semester survey course with an analysis of American military history from the Revolutionary War through the current global war on terrorism. This course is designed to be an exploration into the evolution of modern warfare with a special emphasis on the technological developments, organization adaptations and doctrinal innovations that have shaped the American military from 1900 through the modern day war on terrorism. Part of this course includes a field trip to the nearby First Division Museum at Cantigny in Wheaton, IL. The successful completion of MS 414 and MS 415 meets the military history pre-commissioning requirements required for U.S. Army ROTC cadets. Prerequisite: MS 414.

MS 416. Military History: Strategy and Tactics.

Cr. 1. This course is a study of military tactics, leadership, doctrine, technologies, techniques, and procedures as they related to historical military campaigns.

MS 495. Topics in Military Science.

Cr. 2. This is an independent study course that will allow contracted ROTC cadets to design a course of study to investigate selected topics in military science more completely.

GRADUATE DIVISION

David L. Rowland, Ph.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 and the Great Lakes region. More than 2500 students have received a master's degree since the inception of this program. Since many of these alumni live and work in Indiana, Illinois, and Michigan, the University has, through this program, made a major contribution to the life of the larger community in which it resides.

The following degrees are offered: Master of Arts with concentrations in Community Counseling and Clinical Mental Health Counseling; Master of Arts with concentrations in Chinese Studies, and English Studies and Communication; Master of Business Administration; Master of Engineering Management; Master of Education with concentrations in Initial Teaching Licensure, or Teaching and Learning; Education Specialist in School Psychology; Master of Science in Nursing; Master of Science with concentrations in

International Commerce and Policy, and Sports Administration; and Master of Arts in Liberal Studies with concentrations in English, Ethics and Values, Gerontology, History, Human Behavior and Society, Theology, and Theology and Ministry. Many of these degrees are offered in combination with the J.D. degree from the Valparaiso University School of Law.

The schedule of classes for many programs is structured to meet the needs of part-time and most full-time students. Details about these programs and postgraduate certificate and non-degree programs may be found in the Graduate Catalog, which may be obtained by contacting the Graduate Division, Valparaiso University (219-464-5313) or by visiting their website <www.valpo.edu/gce>.

The graduate programs are under the general supervision of the Provost and the Faculty of the University. Its policies are defined by the Graduate Council and are administered by the Dean of the Graduate Division.

SCHOOL OF LAW

Jay Conison, J.D., Dean
Bruce Berner, LL.M., LL.B., Associate Dean for Academic Affairs
Curtis W. Cichowski, J.D., Associate Dean for Administration
Mary G. Persyn, J.D., M.L.S., Associate Dean of Law Library
JoEllen Lind, J.D., Associate Dean for Faculty Development

Professors Adams, Berner, Blomquist, Bodensteiner, Brietzke, Conison, Dooley, Gaffney, Huss, Levinson, Lind, Moskowitz, D. Myers, Persyn, Potts, Stith, Trujillo, Vance, Vandercoy, Whitton; Associate Professors Carter, Straubel, Stuart; Assistant Professors Brown, Calo, Loebel, Telman, A. White; Clinical Faculty Gienapp, Kohlhoff, Schmidt, Tegarden, Welter.

In the late 1870s, Valparaiso attorney and Civil War Colonel Mark L. DeMotte decided that the importance of formalized legal education warranted a new department for the study of law at the local college. Convincing the college president that such training was crucial to the quality of legal representation throughout the country, Colonel DeMotte founded in 1879 a program for legal study that would become the Valparaiso University School of Law.

From the beginning, the School of Law graduated new lawyers able to effectively practice law as soon as they joined the bar. This remains true today. By immersing its students in a rigorous program, Valparaiso Law School produces graduates that are successful, respected, and prepared.

The School of Law provides a range of course offerings recognized for its breadth, depth and blend of legal theory and practice. The required curriculum provides a comprehensive and intensive study in the foundations of law, and a wealth of elective courses covering many substantive areas. Course concentrations, clinical programs, externships, and co-curricular organizations introduce students to advanced study in various areas of law and offer meaningful opportunities for innovation and specialization.

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 extraordinarily accessible faculty. From the classroom to the courtroom to the boardroom, our graduates thrive on the ongoing support of faculty, staff, students and alumni.

Continuously accredited by the American Bar Association since 1929, and the Association of American Law Schools since 1930, the School offers both the Juris Doctor (JD) and Masters in Law (LLM) degrees and dual degrees, JD/MA in Psychology, JD/MA in Clinical Mental Health Counseling, JD/MBA, JD/MALS, JD/MS in International Commerce, JD/MS in Sports Administration, and JD/MACS.

The JD degree options include the traditional three-year, full-time program; a part-time, five-year program; and an accelerated two and one-half-year program. Unique to the School of Law is the Honors Program, designed to offer a special academic challenge to highly talented students.

The LLM degree is offered through a one-year, full-time program. This particular program is designed primarily for international lawyers who have a law degree from their home country and wish to enhance their understanding of the American legal system.

The dual degrees are four-year programs. The JD application process is separate from the MA and MBA application processes. Application forms for the JD degree are available in the School of Law Admissions Office, Wesemann Hall, 888-825-7652. Applications for the MA, MS and MBA programs are available in the office of Graduate Studies, Kretzmann Hall, 219-464-5313.

Detailed program information about the School of Law and its admissions policies are available from the Admissions Office (1-888-VALPOLAW, or <www.valpo.edu/law/>).

SUMMER SESSIONS

The University offers two six-week sessions. Although most courses are six weeks, within each six-week term usually a number of specialized courses are offered in shorter periods of time. 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, junior and senior high school students beginning their college careers early and other interested persons who would like to take coursework 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 one semester's work. Students enrolled in a two or four-week intensive course may not be simultaneously enrolled for any other course, except by petition.

Courses on the undergraduate and graduate levels are offered in each session in virtually all areas of the College of Arts and Sciences, together with selected undergraduate and graduate courses in the College of Business Administration, the College of Engineering, and the College of Nursing. The Summer Business Program enables students in Arts and Sciences, Nursing, and Engineering to add a Liberal Arts Business Minor to their transcript through one summer of intensive academic coursework.

Each summer session features a variety of courses in the morning and evening to accommodate the student who wishes to take course work while employed full- or part-time. A selection of online courses offers maximal flexibility in scheduling and permits students to take coursework with minimal residency on campus. 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 advisor or the Office of the Dean of the College of Arts and Sciences for more information.

FEEES FOR 2007 SUMMER SESSIONS

Tuition per Credit Hour	
Undergraduate	\$360.00
Undergraduate Nursing	\$600.00
Graduate	\$420.00
Graduate Nursing	\$500.00
MBA	\$570.00
Private Music Lessons (in addition to tuition) Each private or class lesson in applied music	
	\$325.00

COLLEGE OF ADULT SCHOLARS

The College of Adult Scholars is a special program for highly motivated nontraditional (adult) students starting or returning to college to seek their first degree, or returning to college for further professional training by seeking a second degree or certificate of specialization. The College has its own mission, students, and tuition structure, and although the admission criteria are intended to recognize the special needs and experiences of adult learners, admission to the College is selective. Students in the College may select from nearly all the majors and programs as full-time students, and they may take courses in the evening, daytime, or both. Because of the special tuition rate offered through the College of Adult Scholars, enrollment in certain programs and daytime courses may be restricted. To qualify for the special tuition rate, a student's credit load may not exceed eleven hours during the spring and fall semesters.

Admission and Registration.

Application to the College of Adult Scholars is made through the Office of Continuing Education. Students who meet any one of the following four criteria are eligible to apply for admission: twenty-four years or older; have interrupted their formal education for more than three years; have a baccalaureate degree; or plan to take a Valparaiso University course approved and offered by

the College at an offsite location or to a special population. Applicants who have completed an undergraduate degree or significant prior college coursework (minimum of 30 credits) with a grade point average of 2.0 or higher may be admitted unconditionally. Applicants not meeting these criteria but who show ability and promise for success may be admitted on a conditional basis. College board scores are not required, but students admitted on a conditional basis may be required to take a placement test to establish their qualification for entry into the College. The final decision for admission rests with the Dean of Continuing Education, whose judgement is based on the student's ability to benefit from the program.

Advising and registration of students in the College of Adult Scholars is done through the Office of Continuing Education. Students interested in enrolling in the College should call 219-464-5313 or visit the office in Kretzmann Hall, Room 116 or visit their website at <www.valpo.edu/gce>.

SAGE PROGRAM

The College of Adult Scholars also enrolls students in the SAGE (Senior Adult Growth through Education) program which allows seniors 60 and older, or 55 and retired, to audit courses for a fraction of the regular tuition cost.

**ASSOCIATE OF ARTS DEGREE
(61 CR.)**

Students in the College of Adult Scholars have the option of pursuing the 61-credit Associate of Arts degree. This degree is particularly appropriate for students who plan to work toward a Bachelor of Arts degree in the College of Arts and Sciences. A student must complete a minimum of 45 credit hours as a College of Adult Scholar student in order to qualify for degree candidacy. Adult scholars who change to full time status with fewer than 45 credits are not eligible for the Associate of Arts degree.

A. General Education

Requirements 39-40 Cr.

1. CORE 110 5 cr.
2. CORE 115 5 cr.
3. THEO 200 3 Cr.
4. Cultural Diversity 11 Cr.
Foreign Language (one) 8 Cr.
Cultural Diversity course 3 Cr.
5. Humanities 6 Cr.
Choose two of the following:
Fine and Performing Arts . . . 3 Cr.
A literature course numbered
200 from English, Foreign
Languages, or Theatre . . . 3 Cr.
A History course 3 Cr.
A Philosophy course (not 150) 3 Cr.
6. Social Sciences 6 Cr.
7. Natural Science (with lab) . . 3-4 Cr.

As stated on page 106, College of Adult Scholars students who have completed Level II of a foreign language in high school but have not studied that language for at least 6 full years may be allowed to count credit earned for level 101 toward the foreign language requirement. Students opting for a different language from their high school experience begin with course 101 in the new language.

B. Concentrations 21 Cr.

Beyond completing the general education requirements, students elect one of the following concentrations. Coursework used to meet general education requirements for the Associate of Arts degree may not be used to meet concentration requirements.

1. Culture and Humanity . 21 cr.
Courses from at least two of the following subjects: English, History, Philosophy, Theology, or Classical Civilization.

2. Social and Behavioral Science 21 cr.
Courses from at least two of the following subjects: Economics, Political Science, Psychology, Sociology and approved courses in Geography (GEO 101, 102, 200, 210, 274, 301, and approved 490).
3. Communication and Expressive Arts 21 cr.
Courses from at least two of the following subjects: Art, Foreign Languages and Literatures, Communication, Music, Theatre.

From these concentrations, a student may construct the equivalent of an academic minor or, with additional coursework, an academic major that may be applied toward the degree requirements for the Bachelor of Arts.

C. Other requirements

1. Students must achieve a minimum grade point average of 2.0 both cumulatively in all work at Valparaiso University and in their selected concentration.
2. At least 6 credits in the concentration must be taken at the 200 level or above.
3. Thirty of the last 34 credits for the degree must be completed in residence.
4. Students must complete 45 credits as a student in the College of Adult Scholars program.
5. At least half of the concentration requirements must be completed in residence and as a student in the College of Adult Scholars program.
6. Enrollment in any course requires that the student meet the appropriate prerequisites.

Students who choose to pursue a bachelor's degree must meet all the stated catalog requirements for that degree. For example, for the Bachelor of Arts degree, the following would need to be completed:

1. Upper Level Theology 3 cr.
2. Social Science
(from one other department) 3 cr.
3. Natural Science with Lab . . 3-4 cr.
4. Quantitative Analysis 3 cr.
5. Physical Education 100 1 cr.
6. Major/minor/electives 45 cr.

In meeting the requirements for the bachelors degree, general education courses

may be applied toward the student's major(s) or minor(s). Therefore, the number of major or minor elective credits may vary.

Coursework credits transferred from other institutions will be reviewed for equivalency on the same criteria currently used by the College of Arts and Sciences. All coursework for the Associate of Arts degree could be applied toward completion of the Bachelor of Arts degree.

ASSOCIATE OF ARTS DEGREE WITH A CONCENTRATION IN EDUCATION FOUNDATIONS (60 CR.)

This degree meets requirements for certification as a teacher aide and serves students wanting to take steps toward a career in teaching. The degree also provides a general foundation appropriate for any student intending to pursue a bachelor of arts or bachelor of science degree. Prior to enrollment in this program, a student must take the Mathematics Placement Exam.

A. General Education

- Requirements 32-33 Cr.
1. CORE 110 and 115 10 cr.
or
ENGL 100 College Composition 3 cr.
FS 100 Freshman Seminar . . . 3 cr.
PHIL 125, HIST 200, HIST 210,
THEO 100 3 cr.
 2. ENGL 200 3 cr.
 3. THEO 200 3 cr.
 4. Fine or Performing Arts 3 cr.
 5. Social Science 3 cr.
 6. History 3 cr.
 7. Cultural Diversity course 3 cr.
 8. Natural Science 4 cr.
 9. Mathematics 211/213 4 cr.

B. Concentration in

- Education Foundations 21 cr.
1. ENGL 321 Intermediate
Composition 3 cr.
 2. GEO 101 World Geography or
SOC 160 Contemporary Social
Problems 3 cr.
 3. PSY 110 General Psychology 3 cr.
 4. PSY 330 Child and Adolescent
Development 3 cr.
 5. ED 204 Educational Psychology 3 cr.
 6. COMM 145 Interpersonal
Communication 3 cr.
 7. In addition to the above,
any US Diversity course 3 cr.

- C. Electives 4-7 cr.
If Mathematics 110 is required, 4 credits
of electives are available.

D. Other Requirements

Students must also meet other University requirements as stipulated under C1-C6 of the Associate of Arts degree.

Certificate Programs

Valparaiso University offers certificates in several fields. These stand-alone programs typically range from 15 to 30 credits. Each is designed to serve the needs of a specific professional audience and as such each has its own admission requirements. Certificate students may not be seeking a degree at Valparaiso University and are limited to eleven credits per semester (seven during each summer session).

GEOGRAPHIC AND ENVIRONMENTAL POLICY SYSTEMS

This interdisciplinary basic or advanced certificate (15 or 30 credits) prepares professionals for planning of space and environments in a variety of natural and human-made settings. The program emphasizes training in GIS software, its application to specific situations and its larger context of use (including policy). The certificate is appropriate for persons holding undergraduate and/or graduate degrees.

INFORMATION, COMMUNICATION, AND TECHNOLOGY

Software Design is a 19-credit certificate for developing proficiency in computer programming and design of software. This certificate is particularly appropriate for natural science, business, and engineering professionals needing to broaden their understanding of software design. A certified student possesses fundamental skills for general programming and in-depth knowledge of the current programming language JAVA. Graduates are able to adapt to new programming environments with a minimum of training and if desired, are prepared for entry into graduate study in computer science.

Information Technology is a 20-credit certificate on how to "use" rather than how to "design" computer systems. It combines

software coursework in programming with several applications courses that deal with software systems and how they work. The program is open to any individual having an undergraduate degree (with some basic math), but is most useful to science and business majors. A certified student could work with digital communication systems as a programmer or analyst, understand communication protocols and manage computer networks or internet resources.

Digital Systems is for individuals who need to refresh or upgrade an existing engineering or science education by learning more about computer systems. This 15-credit program provides modest depth of exposure to a variety of computer engineering topics. Certified students would understand computer software and hardware well enough to apply them to their primary discipline. They would be able to design small digital circuits, write programs for both microcomputers and controllers, develop web pages and analyze computer networks.

Communication and Information Management is an 18-credit program designed for individuals wanting to develop proficiency in a variety of electronic applications related to communication and information. Certified students would possess an array of current technological skills relevant to publication, publicity,

interoffice and electronic communication, and data management. They could understand and develop websites; work with desktop publishing; create, maintain, and manipulate data files; plan and design graphic presentations; and oversee office information systems.

ORGANIZATIONAL MANAGEMENT

This 24-credit certificate is intended for individuals who work in an administrative or supervisory capacity and who would therefore benefit from training in business-related areas, including accounting, personnel management, marketing, business law, leadership, and business ethics. The certificate is open to persons with or without an undergraduate degree. All coursework may be applied toward a business degree at Valparaiso University.

PUBLIC SERVICE AND LEADERSHIP

Basic and advanced (18 or 30 credit) certificates are designed for individuals with liberal arts or professional degrees who are considering or currently working in government or the public and nonprofit sectors. Both programs include coursework in government, public communication, finance, social and public policy, research methods, and administration and leadership. The advanced certificate allows further specialization in one or more of these areas.

ADMISSION REGISTRATION ACADEMIC POLICIES

Admission

Application for admission on a form provided by the Office of Admission 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. Applications for admission to undergraduate programs are sent to the Office of Admission. For admission to the School of Law, consult the catalog of the School of Law. For admission to the Graduate Division, consult the catalog of the Graduate Division.

General Requirements

Valparaiso University admits those students 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, standardized test scores, character, and evidence of motivation for college studies. The University reserves the right to deny admission to any applicant.

A student who wishes to be considered for admission into the freshman class must have the following items on file: 1) a completed undergraduate application; 2) an official high school transcript; and 3) an official report of scores on the College Board's SAT I or the American College of Testing Program Assessment (ACT).

Most Valparaiso University applicants will have taken and successfully completed the most challenging program of studies available in their high schools. The number of high school units expected is listed below. One (1) unit is equal to one (1) year of satisfactory work (C- or better) in an accredited secondary school. Entrance requirements differ slightly for some colleges and academic programs.

For students intending to choose a major in the College of Arts and Sciences, high school preparation is expected to include:

- English 4
- Algebra, geometry, and advanced algebra 3
- Foreign language 2
- History 2
- Laboratory Science 2
- Additional science, history, social sciences, language, English, and mathematics courses 3

For students intending to major in the College of Nursing, high school preparation is expected to include:

- English 4
- Algebra, geometry, and advanced algebra 3
- Laboratory Science including biology and chemistry 3
- History 2
- Additional science, history, social sciences, language, English and mathematics courses 3

For students intending to major in the College of Business Administration, high school preparation is expected to include:

- English 4
- Algebra, geometry, and advanced algebra 3
- History 2
- Laboratory Science 2
- Foreign Language 2
- Additional science, history, social sciences, language, English, and mathematics courses 3

For students intending to major in the College of Engineering, high school preparation is expected to include:

- English 4
- Algebra, geometry, advanced algebra, and trigonometry/pre-calculus 4
- History 2
- Laboratory Science including chemistry/physics 3
- Additional science, history, social sciences, language, English, and mathematics courses 3

Homeschooled Requirements:
Students who are homeschooled are encouraged to contact the Office of Admission for specific requirements.

TRANSFER REQUIREMENTS

A student who wishes to be considered for admission as a transfer student must submit the following items:

- 1) a completed transfer admission application;
- 2) official copies of ALL college transcripts, and if a student has successfully completed (C- or better) less than 24 semester hours of college credit, a high school transcript (including SAT I and/or ACT scores);
- 3) a transfer applicant, currently on academic probation, cannot be considered for admission until in good academic standing with the current school.
- 4) Dean's Transfer Evaluation Form must be completed by the Dean of Students at the transfer applicant's current school.

To be considered for admission, a minimum 2.00 cumulative grade point average (C) in college coursework is required for most programs. However, some programs require a minimum 3.00 grade point average (B).

SPECIAL REQUIREMENTS FOR 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 interdisciplinary study. Students enrolled in Christ College are concurrently enrolled in one of the University's four other colleges.

SPECIAL STUDENT STATUS

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 precondition 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 Continuing Education (the College of Adult Scholars) are admitted as special, non-matriculated students. For a change from this status to classified, degree-seeking student status, an application for admission through the Office of (Undergraduate) Admission is required.

This status is not available to a student dismissed from the University.

INTERNATIONAL REQUIREMENTS

Valparaiso University welcomes applications from qualified international students. At present, over forty nations are represented in the University's international student population.

In order to be considered for admission to Valparaiso University, an international student will need to submit the following items at least four months before the term for which he or she is applying to the Office of Admission.

1. **Application**—Applicants may submit the completed paper International Student Application along with a check for \$50, payable to Valparaiso University, or complete the free online application.
2. **Official Transcripts** — Applicants must submit original or certified copies of transcripts from secondary school (high school), college, or university attended. All transcripts must be sent directly from the school to Valparaiso University's Office of Admission in a separate, sealed envelope. If relevant, include a school-leaving certificate.
3. **SAT or ACT Test Scores**—Official test results must arrive directly from the testing agency. Please note Valparaiso University's SAT code-1874, ACT code-1256.
4. **Proof of English Proficiency**—All applicants must meet a minimum level of proficiency in the English language and submit proof of the proficiency to the Office of Admission. Minimum proficiency may be met by one of the following exams:
 - TOEFL—score of 550 paper, 213 computer, 80 Internet
 - SAT—verbal score of 500
 - ACT—English score of 24
 - IELTS—score of 6.0
 - GCE or GCSE English exam—grade of A or B
 - IB Higher Level English exam—score of 5–7 or grade of A or B.

Students who do not meet minimum English proficiency requirements are encouraged to attend INTERLINK, an intensive English language program which operates on Valparaiso University's campus.

5. **Transfer Evaluation Form (Undergraduate transfer students only)**—The Transfer Evaluation Form must be completed by the Dean of Students at the transfer applicant's current school; only required for those who are currently attending a college/university.

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.; or e-mail: interlink@valpo.edu; FAX number (219) 464-6846.

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 Advisor.

Tuition. See page 270 in this catalog.

Financial Aid. A limited number of international merit scholarships are available. Amounts vary. 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. In addition, Valparaiso University requires that all international students enroll in a special insurance policy (limit \$250,000.00) 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 Admission, Valparaiso University, Valparaiso, IN 46383-6493, U.S.A. or email undergrad.admissions@valpo.edu.

International Transfer Students. To receive transfer credit for university courses completed outside the United States, international applicants should submit detailed descriptions of their previous coursework. Valparaiso University may require that such coursework be evaluated by a professional evaluation service at the applicant's expense.

Regardless of other degree requirements, candidates for all 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. At least thirty of the last forty credits presented for the degree.

Housing Application

An application for University housing ("Housing and Tuition Deposit Form") is mailed to each newly admitted student. This application and a deposit of \$200.00 (tuition and housing) should be returned to the Office of Admission as soon as possible. All checks should be made payable to Valparaiso University.

Credit By Examination

Entering first-year students may become eligible for credit by examination in three ways: 1) through the Advanced Placement Program administered by the College Entrance Examination Board, 2) through the International Baccalaureate Program administered by International Baccalaureate North America, and 3) through the course credit program administered by individual departments.

ADVANCED PLACEMENT PROGRAM

Students who submit results of Advanced Placement examinations are eligible to receive credit in accordance with the following table. AP examinations must be taken before enrollment as a full-time student at Valparaiso University. For more information, contact the Admissions Office.

Examination	Required Score
Art 2D Design (ART 290 - 3 Cr.)	3
Art History (ART 311 - 3 Cr.)	3
Art Studio: Drawing (ART 290 - 3 Cr.)	3
Art Studio: General (ART 290 - 3 Cr.)	3
Biology (BIO 171, 172 - 8 Cr.)	4
Chemistry (CHEM 121 - 4 Cr.)	3
(Students intending to continue on to CHEM 122 are encouraged to repeat CHEM 121 if they receive a score of 3 on the AP Chemistry exam.)	
Chemistry (CHEM 121, 122 - 8 Cr.)	4
Computer Science A (CS 115 - 3 Cr.)	4
Computer Science A (CS 157 - 3 Cr.)	5
Computer Science AB (CS 115 - 3 Cr.)	3
Computer Science AB (CS 157 - 3 Cr.)	4
Economics - Micro (ECON 221 - 3 Cr.)	4
Economics - Macro (ECON 222 - 3 Cr.)	4
English, Language and Composition (ENGL 100 - 3 Cr.)	4
English, Literature and Composition (ENGL 200 - 3 Cr.)	4
Environmental Science (GEO 260 - 3 Cr.)	4
French Language (FLF 102 - 4 Cr.)	4
French Language (FLF 102, 203 - 8 Cr.)	5
French Literature (FLF 102 - 4 Cr.)	4
French Literature (FLF 102, 203 - 8 Cr.)	5
German Language (FLGR 102 - 4 Cr.)	4
German Language (FLGR 102, 203 - 8 Cr.)	5
Geography, Human (GEO 101 - 3 Cr.)	4
Government and Politics, American (POLS 120 - 3 Cr.)	4
Government and Politics, Comparative (POLS 130 - 3 Cr.)	4
History, American (HIST 220, 221 - 6 Cr.)	4
History, European (HIST 200 - 3 Cr.)	4
History, World (HIST 210 - 3 Cr.)	4
Latin Literature (FLL 102 - 4 Cr.)	4
Latin Literature (FLL 102, 203 - 8 Cr.)	5
Latin, Vergil (FLL 102 - 4 Cr.)	4
Latin, Vergil (FLL 102, 203 - 8 Cr.)	5
Math, Calculus AB (MATH 131 - 4 Cr.)	4
Math, Calculus AB (MATH 131, 132 - 8 Cr.)	5

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Math Calculus BC (MATH 131 - 4 Cr.)	3
Math Calculus BC (MATH 131, 132 - 8 Cr.)	4
Music Theory (MUS 163 - 3 Cr.)	5
Physics B (PHYS 111, 111L - 4 Cr.)	3
(Students intending to continue on to PHYS 112 are encouraged to repeat PHYS 111 if they receive a score of 3 on the AP Physics B exam.)	
Physics B (PHYS 111, 111L, 112, 112L - 8 Cr.)	4
Physics C, Mechanics (PHYS 141 - 3 Cr.)	4
Physics C, Electricity and Magnetism (PHYS 142 - 3 Cr.)	4
(Students with a score of 4 or higher on either of the AP Physics C exams may also receive credit for PHYS 141L or 142L, depending on their AP lab experience. See the Physics Department Chair for more information.)	
Psychology (PSY 110 - 3 Cr.)	4
Spanish Language (FLS 102 - 4 Cr.)	4
Spanish Language (FLS 102, 203 - 8 Cr.)	5
Spanish Literature (FLS 102 - 4 Cr.)	4
Spanish Literature (FLS 102, 203 - 8 Cr.)	5
Statistics (MATH 140 - 3 Cr.)	4

INTERNATIONAL BACCALAUREATE PROGRAM

First-year students who submit results of International Baccalaureate Higher Level examinations with scores of 5, 6 or 7 receive credit for the following subjects:

Examination	Credit Earned
Individuals and Societies	
English A1 (ENGL 100)	3 Cr.
Economics (Social Analysis)	3 Cr.
Geography (GEO 101)	3 Cr.
History Americas (HIST 220, 221)	6 Cr.
History Europe (HIST 200, 210)	6 Cr.
Language B (French, German, Spanish 102)	4 Cr.
Philosophy (PHIL 125)	3 Cr.
Psychology (PSY 110)	3 Cr.
Social Anthropology (SOC 150)	3 Cr.
Experimental Sciences	
Biology (BIO 171)	4 Cr.
Chemistry (CHEM 121)	4 Cr.
Physics (PHYS 111, 111L)	4 Cr.
Mathematics	
Advanced Mathematics (Mathematics)	4 Cr.
Mathematical Methods (Mathematics)	4 Cr.
Mathematical Studies (Mathematics)	4 Cr.
Mathematics HL (Mathematics)	4 Cr.
The Arts and Electives	
Art/Design (ART 290)	3 Cr.
Classical Greek (FLGK 102)	4 Cr.
Computer Science (CS 115)	4 Cr.
Latin (FLL 102)	4 Cr.
Music (MUS 101)	3 Cr.
Theatre Arts (THTR 101)	3 Cr.

COURSE CREDIT EXAMINATION PROGRAM

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 foreign languages and mathematics, as explained in the listings for those departments.

In all of the cases, the credit awarded is entered on the student transcript, which is maintained by the Registrar's Office. This credit can be applied toward required or elective courses.

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.

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 if no other credit by examination is awarded in courses applicable in the same area of general education.
4. A score of 500 or above on the English General Examination entitles a student to three credits for English 100.
5. A score of 500 or above on the Humanities General Examination entitles a student to three credits in the area of Fine Arts or Fine Arts-Literature.

6. A score of 500 or above on the Social Science-History General Examination entitles the student to three credits in the area of Social Analysis.
7. A score of 500 or above on the Natural Science General Examination entitles a student to three (3) credits in the area of Natural Science.

Valparaiso University awards credit for CLEP Subject Area examinations as indicated below. Credit for Subject Area examinations is awarded only if the examination is taken before the student enrolls in the specific college-level course for which credit by examination is sought.

Examination	Required Score
American History I (HIST 220 - 3 Cr.)	50
American History II (HIST 221 - 3 Cr.)	50
American Literature (ENGL 401, 402 - 6 Cr.)	50
American Government (POLS 120 - 3 Cr.)	50
Analysis and Interpretation of Literature (ENGL 200 - 3 Cr.)	50
Calculus with Elementary Functions (MATH 131 - 4 Cr.)	50
College Level French Level I (FLF 102 - 4 Cr.)	45
College Level French Level II (FLF 102, 203 - 8 Cr.)	50
College Level German Level I (FLGR 102 - 4 Cr.)	45
College Level German Level II (FLGR 102, 203 - 8 Cr.)	50
College Level Spanish Level I (FLS 102 - 4 Cr.)	45
College Level Spanish Level II (FLS 102, 203 - 8 Cr.)	50
College Mathematics (MATH 120 - 3 Cr.)	50
English Literature (ENGL 200 - 3 Cr.)	50
Financial Accounting (ACC 205 - 3 Cr.)	50
Freshman College Composition (ENGL 100 - 3 Cr.)	50
General Biology (BIO 171, 172 - 8 Cr.)	50
General Chemistry (CHEM 121 - 4 Cr.)	45
(Students intending to continue on to CHEM 122 are encouraged to repeat CHEM 121 if they receive a score of 45 on the CLEP Chemistry exam.)	
General Chemistry (CHEM 121, 122 - 8 Cr.)	50
Human Growth and Development (PSY 330 - 3 Cr.)	50
Information Systems and Computer Applications (IDS 410 - 3 Cr.)	50
Introductory Business Law (BLAW 104 - 3 Cr.)	50
Introductory Psychology (PSY 110 - 3 Cr.)	50
Introductory Sociology (SOC 110 - 3 Cr.)	50
Precalculus (MATH 114 - 4 Cr.)	50
Principles of Macroeconomics (ECON 222 - 3 Cr.)	50
Principles of Management (MGT 304 - 3 Cr.)	50
Principles of Marketing (MKT 304 - 3 Cr.)	50
Principles of Microeconomics (ECON 221 - 3 Cr.)	50
Western Civilization I (HIST 200 - 3 Cr.)	50
Western Civilization II (HIST 210 - 3 Cr.)	50

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 start day of the term 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 transcript(s) and other required credentials are on file in the Office of Admissions. After their records are evaluated, applicants 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 197. For registered nurses in the degree completion program of the College of Nursing, see page 229.

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 102 credits (College of Engineering). See page 267 for residence requirements and restrictions related to majors and minors.

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.

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 with more than 75 credits of advanced standing need to complete one course (three credits) of theology at Valparaiso University. One course in theology must be taken in residence at Valparaiso University.

Major 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 a petition are given in the following table:

Program	Maximum Credit Hours
College of Arts and Sciences	18 Cr.
Education (Elementary, Middle Level)	18 Cr.
Secondary Education majors	19 Cr.
Bachelor of Music	18 Cr.
Bachelor of Music Education	19 Cr.
College of Business Administration	18 Cr.
College of Engineering	19 Cr.
College of Nursing	18 Cr.
(except in approved block schedules)	

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. This petition must be approved by the academic advisor and 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 be approved by the instructor of the course and/or the Chair of the Department in which the course is offered. 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 advisor and the Chair of the Department in which the course is offered. Forms are available in the Registrar's Office.

Any student-athlete who wishes to drop below 12 semester credit hours (full-time status) must obtain the signature of the Athletics Compliance Coordinator or her designee in addition to the other signatures required on the appropriate form from 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/Cr.
A excellent	4.0
A-	3.7
B+	3.3
B good	3.0
B-	2.7
C+	2.3
C satisfactory	2.0
C-	1.7
D+ less than satisfactory, but passing	1.3
D passing	1.0
D-	0.7
F failure	0.0
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 cumulative grade point average of 2.00 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 requires the filing of the appropriate form with the signatures of the student's academic advisor, 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 Assistant Provost 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 advisors and the dean of their college prior to electing this option.

Certain courses normally result in S/U grade, as noted in the catalog course descriptions. In addition to any of these courses, the student may take one course, normally letter graded (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 preprofessional 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 advisor;
3. A decision to elect a course on 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 Summer Session or seven-week half-term courses.

NOTE: In selection of the S/U option, students are strongly advised to discuss the

implications of that option with their advisor 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. In addition, students enrolled in the College of Business Administration (see page 198) and the College of Nursing (see page 231) have specific criteria for course intensification of their courses. This opportunity is part of the University's Course Intensification Plan. The following regulations pertain to this option for all students regardless of their college:

1. The course must be offered for three or more credits.
2. The initiative and responsibility for developing a satisfactory proposal lie with the student.
3. Student must secure and fill out a *Petition to Intensify a Course* from the Registrar's web page.
3. The proposal must be approved by the student's advisor, the instructor of the course, the chair of the course, and the dean of the student's college.
4. 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 or her advisor 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.

ACADEMIC 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 earned to the number of graded credit hours completed. Standing is also referred to as the **grade point average**.

Note the above exception regarding repetition of a course.

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.

Parents or guardians are informed when an academic action has been taken concerning 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 that 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.

CLASS STANDING OF A STUDENT

An undergraduate student must have completed 24 semester credits to be classified as a sophomore; 56 semester credits to be classified as a junior; and 88 semester credits to be classified as a senior.

A student in the School of Law should consult that School's bulletin.

SEMESTER GRADE REPORT

Grade reports are sent at the student's request only to the student and only to the address indicated by the student. This report is considered by the University to be a progress report maintained by the University. Students may also view their grades online at <https://datavu.valpo.edu>.

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 and above.

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 advisor 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 semesters 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 (either 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 267.

CHANGE 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., if 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 advisors 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 degrees of the new college any 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.

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 makeup 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 Dean of Students 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 advisor 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 Senate Standing Committee.

No degree is conferred upon and no transcript is given for a student whose account with the University has not been settled in full.

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, the student must fulfill all the specific course requirements for the second degree. No course used to fulfill a major or minor requirement for one degree may be used to fulfill any major or minor requirement for a second degree. This restriction refers to courses within the major or minor field, not to additional courses required from outside of the major or minor field. A student who selects an individualized major or minor for any degree may not use the designated

courses to fulfill any other graduation requirement.

Approval of applications for dual degrees must be given by the appropriate advisors, deans, and the Committee on Academic and Professional Standards. No student may graduate at one commencement with more than one degree of the same notation.

Students in the Graduate Division should refer to that Division's bulletin for specific information.

CREDIT AND QUALITY POINT REQUIREMENTS

Candidates for graduation with an associate's degree or a bachelor's degree must have a grade point average of 2.00 or more in all their work at Valparaiso University. In addition, candidates for a bachelor's degree must have a grade point average of 2.00 or more in any major, minor or interdisciplinary program, based on their work at Valparaiso University. Candidates for the Associate in Science degree must have a grade point average of 2.00 in all of their science courses at Valparaiso University. Candidates for the Associate of Arts degree must have a grade point average of 2.00 in their concentration area. 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 all 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. 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 advisor, 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 Semesters or Special Semester programs described on pages 12-13 and 20-25 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 1st. 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 1st.

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 ceremony. 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.

Students who complete their work toward a degree at the end of a Fall Semester or of a Summer Session will 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 grade point average 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 grade point average 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 grade point average 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 grade point average of 3.50 in any semester 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 completed at least fourteen credit hours of work for that semester on campus 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 20-25).

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 Guide to University Life*.

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.

Official transcripts of academic records are released only upon the written request of the student. No degree is conferred upon and no transcript is given for a student whose account with the University has not been settled in full.

TUITION AND FEES EXPENSES HOUSING REGULATIONS REFUNDS

Tuition and Fees

Undergraduate and Professional Tuition, Full-Time Students

VU COLLEGE OR SCHOOL	EACH SEMESTER	ACADEMIC YEAR (TWO SEMESTERS)
College of Arts and Sciences	\$12,180.00	\$24,360.00
College of Business Administration	\$12,180.00	\$24,360.00
College of Nursing	\$12,180.00	\$24,360.00
College of Engineering	\$12,180.00	\$24,360.00
School of Law	\$15,255.00	\$30,510.00

FEES

The general fee for each semester is \$420.00 for all full-time undergraduate students and \$349.00 for all full-time law students. The undergraduate full-time general 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 \$325.00 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.

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 Undergraduate Students and Professional Programs

Undergraduate students who register for less than 12 credit hours are classified as part-time students. Such undergraduate students pay tuition charges as follows:

Enrolled in 6 or less credit hours per semester	\$580 per credit hour
Enrolled in more than 6 and less than 12 credit hours per semester	\$1,125 per credit hour
Enrolled in College of Adult Scholars, no credit hour requirement	\$360 per credit hour

The general fee for Graduate and College of Adult Scholars students is a flat fee of \$65.00 per semester. The general fee for part-time Undergraduate students is \$20.00 per credit hour.

These charges do not include the use of the facilities, of the health service nor participation in the student insurance plan.

Auditors pay \$1,125.00 per credit hour equivalent.

Part-time rates for the School of Law are published in the Law Catalog. Part-time rates for graduate students are published in the Graduate Catalog. Tuition charges for special programs for registered nurses sponsored by the College of Nursing may be obtained by contacting the Dean of Nursing or the Office of Admission.

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—\$100.00. This fee is required of all new students, both resident and commuter. It is not refundable. For the School of Law, see the appropriate bulletin.

Housing Deposit—\$100.00 (\$100.00 for returning students). This fee is required of all students requesting University housing. In case of cancellation, see Refund Policy on page 274.

Nursing Liability Insurance—\$24.00 (Family Nurse Practitioner—\$88.00). 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.

Nursing Lab Fee—\$75.00. This fee is payable by each nursing student each fall beginning when entering sophomore nursing classes. Accelerated summer students taking NUR 203 are billed at the beginning of summer, fall, and at the beginning of their second summer.

Nursing Testing Fee—\$400.00. This fee is payable by each nursing student entering the sophomore year.

Vehicle Registration—\$90.00 per year.

Study Abroad, Cambridge, England—\$1,000.00. Each participant pays this fee.

Study Abroad, Reutlingen, Germany—\$1,000.00. Each participant pays this fee.

Study Abroad, Puebla, Mexico—\$1,000.00. Each participant pays this fee.

Study Abroad, Hangzhou, China—\$1,000.00. 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, financial or otherwise, to the University.

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 exemption by the Registrar.

International Student Transfer Credit Evaluation—\$200.00. 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 Admission.

Engineering Fee—\$350.00 per semester. The engineering fee is assigned to all students enrolled in the College of Engineering. Exceptions to this fee may be granted by the Vice President for Administration and Finance on the recommendation of the Dean of the College of Engineering.

Undergraduate Co-operative Education Programs—\$360.00 per credit hour.

PAYEE

Drafts, checks and money orders should be made payable to Valparaiso University. A \$20.00 fee will be charged for each check returned by the bank due to insufficient funds, closed accounts, etc.

Expenses

An estimate of normal expenses for a semester in each college is given below.

College and Category	Average Cost Per Semester
College of Arts and Sciences	
Tuition	\$12,180.00
General Fee	\$420.00
Rent of Room and Board	
Freshman	\$3,575.00
Sophomore	\$3,475.00
Junior-Senior	\$3,385.00
Books and Supplies	\$600.00
College of Business Administration	
Tuition	\$12,180.00
General Fee	\$420.00
Rent of Room and Board	
Freshman	\$3,575.00
Sophomore	\$3,475.00
Junior-Senior	\$3,385.00
Books and Supplies	\$600.00
College of Engineering	
Tuition	\$12,180.00
General Fee	\$420.00
Rent of Room and Board	
Freshman	\$3,575.00
Sophomore	\$3,475.00
Junior-Senior	\$3,385.00
Books and Supplies	\$600.00

College of Nursing	
Tuition	\$12,180.00
General Fee	\$420.00
Rent of Room and Board	
Freshman	\$3,575.00
Sophomore	\$3,475.00
Junior-Senior	\$3,385.00
Books and Supplies	\$600.00

School of Law	
Tuition	\$15,255.00
General Fee	\$349.00
Rent of Room and Board	N/A
Books and Supplies	\$600.00

Estimated expenses for room and board are based upon a minimum meal plan buy-in of \$1,360.00 per semester (freshmen), \$1,260.00 per semester (sophomore), \$1,170.00 per semester (junior), and double occupancy room rent of \$2,215.00 per semester for Alumni, Lankenau, Brandt, and Scheele Halls. Rates for other residence halls: \$2,365.00 per semester for 807 Mound; \$2,565.00 per semester for Wehrenberg, Guild, and Memorial Halls; and \$2,665.00 per semester for Kade-Duesenberg. A limited number of single rooms may be made available at an additional cost.

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 270) are not included in these estimates.

Amounts due the University are payable in full one week before the beginning of each semester.

Approximately three weeks before the beginning of the semester, parents and students will receive 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 the beginning of the semester. Adjustments to the estimated invoice required by additional course fees, for example, are detailed in a statement forwarded to parents and students approximately one month after registration confirmation. 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, parking violations, 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 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 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.

Tuition Pay, P.O. Box 816, Swansea, MA 02777. Phone: 1-800-635-0120. Website: <www.TuitionPayEnroll.com>. 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.

Another payment option available to the student is the Valparaiso University Payment Plan. This plan allows payments to be made over three consecutive months each term. Payments for the fall semester to be made as follows: first payment by August 15th; second payment by September 30th; and third payment by October 31st. For the spring semester, payment should be made as follows: first payment by December 31st; second payment by January 30th; and third payment by February 28th. There is no charge for using this plan and an explanation of the plan is included with the fall and spring preliminary account statements that are mailed to the student's home approximately three weeks prior to the start of each term. Please be advised, that when using the online (DataVU) or telephone response payment systems, a payment may take two to four days to post to a student's account.

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 264. Exceptions are made for veterans, those who will be 22 before September 1 of the academic year in question, those living with parents or spouse (commuter students), and sophomore and junior fraternity men who live in recognized 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, however, first priority is given to undergraduate students.

The Office of Residential Life 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 nondiscrimination statement. The University is not involved in arrangements

between students and landlords, except in the event of racial discrimination. The University provides a listing service only and does not inspect, approve, recommend, or authorize any off-campus living units.

Commuter Students. Although students are normally required to live in University residence halls, an exception is made for commuter students. A commuter student is defined as a full-time, undergraduate student who lives with his/her parent or legal guardian, at their primary residence. This address must be within the shorter of 50 miles or one hour from campus. Students who otherwise would be required to live on campus may not reside at another off-campus address after registering as a commuter student. Questions related to this policy should be directed to the Office of Residential Life.

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 \$100.00 of the deposit go towards their housing deposit and the remaining \$100.00 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. If an upperclass student does not currently have a \$100.00 Housing Deposit on file, he/she is required to make a deposit at the Finance Office in accordance with application guidelines established by the Office of Residential Life.

Assignment Policy. New freshman and transfer student assignments are made by the Office of Residential Life 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 Office of Residential Life. Assignments are made with the goal of establishing and developing positive residence hall communities. All Upperclass Housing Agreements received before the

deadline indicated by the Office of Residential Life will be given equal consideration as outlined in the instructions for the assignment process.

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 Office of Residential Life.

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 a 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. Deposits are refunded minus any other indebtedness to the University according to the following guidelines. The full deposit is refunded if written notice is given to the Office of Residential Life on or before the application deadline for fall semester, and November 15 for spring semester. One-half of the housing deposit is refunded if written notice of cancellation is received by the Office of Residential Life on or before June 1 for the fall semester, or on or before December 1 for the spring semester. No refund is given if cancellation is given after June 1 for fall semester and December 1 for spring semester. The Housing Agreement may not be cancelled after July 1 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 should be unable to provide housing, the full amount of the deposit will be refunded.

Occupancy. The housing agreement is binding for the full academic year. Students who are assigned residence hall housing are permitted to move out of the residence hall only if they withdraw from the University, graduate or participate in off-campus study programs such as international study, Washington Semester, urban studies, and the like.

Vacation Periods. The residence halls close at 12:00 noon on the day following the last day of classes or final exams prior to the Thanksgiving, semester, and spring breaks. The halls reopen at 12:00 noon on the day prior to resumption of classes following the Thanksgiving and spring breaks, and at 12:00 noon on the day prior to official spring semester registration and orientation activities following the semester break. Residence Hall accommodations are available during vacation periods for international students and other residents who meet certain criteria. Contact the Office of Residential Life 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. 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 are also provided within each residence hall. Draperies are provided. Further information is available from the Office of Residential Life.

University residence halls are staffed by full-time professional Residential Learning Coordinators, undergraduate paraprofessional Assistant Coordinators, and Resident Assistants.

All students residing in University owned residence halls are **financially responsible for damage** to rooms, furnishings, and equipment. Residence Hall staff members report such damage to the Finance 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. Students are permitted to use dining facilities at any of the locations.

All students living in residence halls, other than sorority members living in Scheele Hall, must buy into the à 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 à 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 2007–2008 is \$1,360 per semester (freshmen), \$1,260 per semester (sophomore), and \$1,170 per semester (junior). Those dollars may be used to purchase food in any of the residence hall dining rooms, Union cafeteria, Grinder's Cafe, or campus grocery stores during the semester. All items for sale are individually priced.

When a meal plan account is reopened for spring semester, any unused à la carte balance of \$75.00 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. If a new account is not reopened for spring semester, the remaining balance from the fall semester will not be refunded or carried over.

Refund Policy

Withdrawal from all classes. Students who withdraw from Valparaiso University may be eligible for a refund of a portion of the tuition and room and board charges for the semester of their withdrawal. The University and/or the student may be required to return some of the federal financial aid, if any, awarded to the student. If the student received financial aid from state, University or private funds (other than family), a portion of the refund may also be returned to the grant, scholarship or loan source from which it was received.

Valparaiso University's refund policy exists for calculating the refund of institutional charges. The federal "Return of Title IV Funds" formula dictates the amount of Federal Title IV aid that must be returned to the federal government by the school and

the student. The federal formula is applicable to a student receiving federal aid other than Federal Work Study, if that student withdraws on or before the 60% point in time in the semester. The student may also receive a refund of institutional charges through the University's refund policy (below). The amount of refund of institutional charges will be the greater of the amount the school must return to federal Title IV programs or the amount determined by the University's refund policy.

The date of withdrawal and basis for calculating all refunds will be the date on which the student notifies the Office of Student Affairs of their intent to withdraw from the University, provided the withdrawal form is completed and submitted to the Office of the Registrar no later than the end of the next working day. Each semester, a schedule of the applicable refund dates is available in the Finance Office, the Office of Financial Aid, and the Registrar's Office.

Valparaiso University's refund policy is as follows: Students who withdraw from the University will receive a prorated refund of tuition and room fees according to the following schedule:

Before the start of the session	100%
During the first week of classes	90%
During the second week of classes	80%
During the third week of classes	70%
During the fourth week of classes	60%
During the fifth week of classes	50%
During the sixth week of classes	40%
During the seventh week of classes	30%
After seventh week of classes	none

The unused meal plan credit is refundable throughout the semester. The refund amount equals the balance of the unused contract less a ten percent administrative fee.

There will be no refund of general, special and laboratory fees.

If a student is receiving financial aid, University and state funds will be reduced according to the above University refund policy. However, the schedule is different for federal funds. If a student withdraws on or before the 60% point of the semester, the percentage of funds that must be returned to the federal government is equal to the number of calendar days remaining in the semester, divided by the number of calendar days in the semester. Scheduled breaks of more than four consecutive days are excluded. The calculation of the return of these funds may result in the student owing a balance to the University and/or the federal government.

Note: If funds are released to a student because of a credit balance on the student's account, then the student may be required to repay some of the federal grants if the student withdraws.

Students considering withdrawing from all classes should consult with the staff in the Student Accounts and/or Financial Aid Offices if they are concerned about the financial impact of withdrawing.

Dropping Courses. Students who drop one or more courses but continue to be enrolled in at least one course for the semester will have tuition charges refunded according to the University's refund policy. There will be no refund of the special, laboratory or general fees.

The financial aid award, if any, is subject to revision if the student drops one or more courses.

FINANCIAL AID SCHOLARSHIPS LOAN FUNDS

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 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. For more information about financial aid programs, contact the Office of Financial Aid.

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 Admission. 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, by writing to the Office of Financial Aid, Valparaiso University, or online at <www.fafsa.ed.gov>. All students should file the FAFSA before March 1 for priority consideration. (For Indiana residents, the FAFSA must be received by the federal processor by March 10 to be eligible for Indiana awards.) Students who filed a FAFSA for the previous year may complete the 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. Students should file the renewal application by March 1 for priority consideration. Renewal depends on continued need, the availability of funds, and eligibility as described below.

FINANCIAL AID PROGRAMS

Financial aid awards may include gift aid (grants and scholarships) and/or self help (loans and employment).

Financial Aid Eligibility. To be eligible for most federal, state, and Valparaiso University assistance, undergraduate students must be enrolled full-time (some federal and state assistance is available to part-time students) 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 in a degree program with at least five credits per semester.

Initial 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 federal aid, enrollment status is determined when the aid is disbursed.

SCHOLARSHIPS AND SPECIAL AWARDS

Valparaiso University makes available to new students a variety of scholarships and awards based on academic and other qualifications. Eligibility for all scholarships and grants is determined by the University Scholarship 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. Specific renewal requirements for scholarships and awards are stated in the scholarship award letter sent to each recipient. If an award is not renewed because the cumulative grade point average falls below the standard, the award may be restored if the student's cumulative grade point average meets the standard at a later time. The student should contact the Office of Financial Aid to request restoration of the award. The University does reserve the right to alter any scholarship or award should circumstances dictate. Some scholarships and awards may not be offered in combination with each other.

PRESIDENTIAL SCHOLARSHIPS

Presidential Scholarships for freshmen are awarded to eligible admitted applicants without regard to financial need on a funds-available basis, based on the admission application. Standardized test scores and high school academic record are the primary factors in determining scholarships.

SPECIAL AWARDS

These special awards are based on the admission application and in some cases, an additional application as noted below.

Allen Pre-Ministerial, varying award amounts, for students preparing for church professions. A separate application is required; contact the Admission Office.

Alumni Heritage Awards, \$1,000 annually to children of Valparaiso University alumni.

Art Department Scholarships, \$1,000 annual award, selected by the Art Department. Application required.

Athletic Grants, varying award amounts, selected by the Athletic Department and individual coaches. Renewal subject to Athletic Department policy and NCAA regulations.

Awards for Excellence, \$1,000 annual award, for outstanding Lutheran High School performance.

Chemistry Scholarships, \$1,000 annual award, selected by the Chemistry Department.

Deaconess Grants, varying award amounts, selected by the Lutheran Deaconess Association.

Foreign Language Scholarships, \$1,000 annual award, selected by the Foreign Language Department.

International Scholarships, varying award amounts, to selected international students.

Lutheran Leadership Awards, varying award amounts, for one new student from the LCMS and one from the ELCA, selected for outstanding leadership. Nominations are due November 1; applications are due January 15.

Martin Luther Awards, Annual awards of varying amounts to children of full-time Lutheran professional church workers. Students who qualify for an academic scholarship will receive the higher of the academic award or the Martin Luther award.

Music Grants, varying award amounts, selected by the Music Department based on auditions.

Physics Scholarships, \$1,000 annual award, selected by the Physics Department.

Phi Theta Kappa Awards, varying award amounts, to selected transfer students who are Phi Theta Kappa members.

Theatre Scholarships, \$1,000 annual award, selected by the Theatre Department.

Valparaiso University National Merit Awards, varying award amounts to National Merit finalists. Recipients must list Valparaiso University as the first college choice and not be receiving another type of National Merit Scholarship.

CAMPUS EMPLOYMENT

Students are employed in a variety of positions on campus. Open positions are posted on Valparaiso University's web site at <www.valpo.edu/finaid>. 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 Valparaiso University Work Study Program regardless of financial need.

NEED-BASED AID

GRANT PROGRAMS

Valparaiso University Gift Awards are institutional awards that are not repaid. All students who file the FAFSA and demonstrate need will be considered. These

awards may be funded by endowed scholarships, and other designated funds. Students will be notified if their award is funded by an endowed scholarship, and will be encouraged to thank the donor.

Federal Pell Grants are available to all students who have demonstrated financial need according to a federal formula. The FAFSA is required. Awards range from \$400 to \$4,310 annually; may be enrolled full-time or part-time.

Federal Supplemental Educational Opportunity Grants (SEOG) are federal grants, awarded to Valparaiso University students with the greatest financial need. Amount of the awards range from \$200 to \$4,000 annually; may be enrolled full-time or part-time.

State Grants (Higher Education Award, Freedom of Choice Award, and 21st Century Award) 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. The FAFSA must be received by the federal processor by March 10 to be eligible for Indiana Awards. Awards are based on need, and are determined annually by state formula. Students must be enrolled full-time for the standard grant programs. Limited funds may be available for part-time students.

LOAN PROGRAMS

Need-based student loans feature below-market interest rates, subsidized interest, and deferred payments. Students must be enrolled at least half-time. Repayment of these loans does not begin until six to nine months after graduation or after dropping below half-time status. Payments may be deferred for attending graduate school or for a variety of special circumstances. Repayments 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 below, 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 federal need-based educational loans are available through Valparaiso University. To be eligible, you must complete and submit the FAFSA. Valparaiso University notifies the student of eligibility via an Award Notification and sends a Promissory Note to sign and return.

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 percent and repayment begins nine (9) months after the student is no longer enrolled at least half-time. Entrance and exit counseling is required. Complete and submit the FAFSA before March 1st. Part-time students may receive Perkins loans in special circumstances if funding permits.

Federal Direct Subsidized 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. All Direct Loans originated on or after July 1, 2006 will have a fixed interest rate of 6.8%. Loan limits are \$3,500 per year for freshmen; \$4,500 for sophomores; \$5,500 for juniors, seniors, and fifth year students. The aggregate maximum is \$23,000 in the undergraduate program. Graduate students are capped at \$8,500 per year, with a lifetime aggregate cap (including undergraduate loans) of \$65,000. All first-time borrowers must complete an entrance interview.

ALTERNATIVE SOURCES OF AID

The following sources are not based on financial need. Non-need based loans are limited to the cost of education less other financial aid, or the annual loan limits, whichever is less.

Federal Direct Unsubsidized Loans. These loans are available to students who are enrolled at least half-time and who are not eligible for or were partially eligible for the Federal Direct Subsidized Loan. Terms and limits are the same as Federal Direct Subsidized Loans, except the student is charged interest on the loan from the date funds are disbursed.

For independent undergraduate and graduate students, the loan limits are higher than the Federal Direct Loan maximums. Freshmen and sophomore independent students may receive up to \$4,000 in additional unsubsidized loans, juniors and seniors up to \$5,000 and graduate students up to \$12,000.

Students should complete and submit the FAFSA and contact the Office of Financial Aid to apply.

Federal Direct Parent Loans for Undergraduate Students (PLUS). These loans are for parents of dependent students enrolled in at least six semester hours. Monies come from the federal government. This loan is not based on financial need, but a credit check is required. Plus Loans originated on or after July 1, 2006 will have a fixed interest rate of 7.9%.

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 the loan is fully disbursed.

Contact the Office of Financial Aid to apply.

Alternative Loans. Available from a variety of private lenders. Principal and interest may be deferred while in school, and a co-signer is usually required. Contact the Financial Aid Office.

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. Contact the Office of Financial Aid for details.

Tuition pay. This service offers an insured monthly payment plan. A \$55 annual participation fee is charged to participants. Contact Tuition Pay, 50 Vision Blvd., East Providence, RI 02914 (Telephone: 800-635-0120 or 410-431-1290; web site: <www.tuitionpay.com>).

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.

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, go to <www.finaid.org/calculators> and select "Loan Calculators". For example monthly payment on \$20,000 in Direct Loans at 6.8% interest will be \$230.16 per month for ten years.

Federal Direct Loan borrowers will be notified by the Direct Loan Servicing Center about repayment of loans. There are a variety of repayment options and options for deferring repayment, including community service, Peace Corps Service, and service under the Domestic Volunteer Service Act of 1973.

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 and no aid can be disbursed until all requested documentation has been submitted to the Office of Financial Aid. Aid is credited regularly throughout the semester. Students must be enrolled for the sufficient number of credits (according to the requirements of each program) in a semester to receive financial aid.

Students whose financial aid exceeds the University charges for the semester, may request 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 direct deposit to their financial institution 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 the University's 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/diaconal 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. Not all certified programs are eligible for loans. It is advised that students with "special student" status meet with a financial aid counselor for detailed information.

OFF-CAMPUS STUDY

Students enrolled in an off-campus program, including study abroad programs, which are approved for credit by Valparaiso University, are eligible to apply for federal and university financial aid.

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 of Student Affairs. 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 (see pages 274-275). Policies for returning a portion of that refund to sponsoring aid programs are as follows.

Valparaiso University Awards and Scholarships. If a refund balance remains

after funds have been returned to the federal programs, a prorated percentage of Valparaiso University funds will be refunded.

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). Federal law determines the total amount of refund due, if any, when a student withdraws and how much of that refund must be returned to the federal programs. See pages 274-275.

State Grants and Scholarships. Refunding proration is done according to specific regulations of the sponsoring state.

STANDARDS OF SATISFACTORY ACADEMIC PROGRESS POLICY

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). These three criteria are checked at the end of each academic year in May to determine whether students are maintaining satisfactory academic progress.

UNDERGRADUATE STUDENTS

Graduate and Law Students should refer to the Graduate and Law Bulletins for specific policy requirements.

Time Frame Measurement. Students may attempt up to 150 percent of the hours required for a bachelor's degree. The 150 percent cap is the maximum limit according to federal regulations. The actual credit hour limit may vary depending on the requirements of each degree program. Most programs require 124 hours: for those

programs the maximum attempted hours allowed is 186. Other programs, including music, engineering, nursing, and business degrees require more than 124 hours; therefore the maximum number of attempted hours allowed would be greater.

All attempted hours at Valparaiso University, including regular semesters and summer sessions, as well as any credits transferred from other schools, will apply toward the 150 percent.

Quantitative Measurement. To comply with the 150 percent time frame requirement, students must complete at least two thirds (2/3) of all Valparaiso University hours attempted with a passing grade. At the end of each academic year, each student's Valparaiso University total hours completed will be compared to the Valparaiso University total hours attempted to determine whether they are meeting this requirement.

Qualitative Measurement. Minimum cumulative grade point average standards are as follows:

Freshmen (less than 24 hours completed)	1.65
Sophomores (24 to 55 hours completed)	1.75
Junior and above (56 or more hours completed)	2.00

Incompletes, withdrawals, repeated courses, and non-credit remedial courses. Incompletes and withdrawals will count as hours attempted but not completed. If incompletes are later completed, they will be reflected when progress is again checked, or sooner if the student appeals. Repeated courses will not add to total hours attempted or hours completed; the grade will simply be replaced. The new grade will be included in the grade point average calculation, which will be considered when progress is again checked, or sooner if the student appeals.

Valparaiso University does not offer non-credit remedial courses.

Appeals and reinstatement. Students whose academic progress is not in compliance with these standards will be notified in writing after the Spring semester that their eligibility for aid has been terminated. They will also be advised of the appeal and reinstatement policy at that time.

Students may appeal termination of their financial aid eligibility based on extenuating circumstances, which may include illness, death in the family, other circumstances

beyond the student's control, or special academic circumstances. If the appeal is approved, the student will normally have one semester to attain grade point average and completed credit hour standards specified by the appeals committee. Students who do not appeal, or whose appeal is denied, will not regain financial aid eligibility until the semester after they have attained the appropriate grade point average and completed credit hour standards. The student should contact the Office of Financial Aid to initiate reinstatement.

Appeals should be directed to the Office of Financial Aid Appeals Committee.

Other Considerations. Summer school credits may be considered in evaluating attainment of the academic progress standards on an appeal basis.

Certain aid programs have shorter time-frame limits, and different grade point average requirements. Recipients of Valparaiso University Scholarships and other merit awards should refer to their scholarship award letter for the terms and conditions for renewal. In addition, federal loan programs have cumulative limits that may be reached before the maximum time-frame limits are reached.

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 deadline dates 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 the 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.

Donated and Endowed Scholarships

These scholarships are funded by corporations, foundations, churches, organizations, and individual friends of Valparaiso University. Donors may provide annual funds, called Donated Scholarships, or establish Endowed Scholarships where the earnings from the funds are used to provide assistance to students. In most cases, donated and endowed scholarships are used to fund Valparaiso University Gift Awards and Academic Scholarships.

APPLICATION REQUIRED

Students should contact the indicated department or the Office of Financial Aid for further information about the following scholarships.

- **Oliver W. and Emma W. Allen Scholarship Fund.** Provides annual awards to students, selected through a special process, who are preparing for rostered church professions within the Lutheran Church (ordained ministries, commissioned ministries, associates in ministry, or lay teachers). Students of other church bodies, preparing for rostered ministries in their respective denominations, would also be eligible as funds permit.
- **Ament-Brenner Endowed Scholarships in Nursing.** Preference to undergraduate students from 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. Application forms are available from the Office of Admission.
- **Caterpillar Endowed Scholarship.** Funded by the Caterpillar Foundation, this scholarship will be awarded to freshman engineering students. Selected students will be invited to apply by January 15th for this scholarship based on merit. The students nominated to receive this scholarship will be selected through a competitive, one-time application process based on merit which may include an interview with the Engineering Recruiting Committee. A service learning component through the Hesse Center will be required of the recipients in order for the scholarship to be renewed for up to four years.
- **Hesse Scholarship.** Funded by former College of Engineering Dean Herman Hesse and his wife, Helen, this scholarship will be awarded to 12 freshman engineering students each year. The Hesse Scholarship is a unique program in which students earn their scholarship by tutoring other engineering students through the Hesse Center. This is a renewable scholarship for a total of four years when criteria is met. Scholarship applications will be mailed to students as they are admitted to the College of Engineering but are also available on the College of Engineering website. The deadline for applications is February 15th and recipients will be chosen by the Hesse Center Director no later than March 1st.
- **Shirley Ayers Jud Memorial Endowed Guild Scholarship.** Funded by memorials to Shirley Jud and gifts by Dr. Henry G. Jud, matched in part by Unisys matching gifts in 1989, 1990, 1991, this scholarship will be awarded to a freshman student with academic ability. The scholarship may be renewed if the recipient maintains a 3.0 or better grade point average. This 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 Admission or the Guild Office.
- **Dr. Philip G. Kapfer Memorial Endowed Scholarship.** This annual award is based on academic merit and character, and is given to a Valparaiso University senior with preference for a student majoring in chemistry and preparing for a teaching career. The award is based on merit rather than need. Contact the Chair of the Chemistry Department for application procedures.
- **James S. Kemper Foundation Scholarship.** To be awarded to one Christ College 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. A Kemper Foundation officer selects the recipient from three finalists identified by the Christ College deans.
- **The Donna Spanopoulos Memorial Scholarship.** Annual award. Preference to senior student(s) 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.** New scholarships will be awarded annually to freshmen students with financial need and with academic ability. The 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 Officer's Endowed Scholarship.** Initiated by the Past National Presidents and Executive Directors in the name of all the women who have served as presidents, vice presidents, secretaries, treasurers and executive directors of the Guild, this scholarship is awarded to two juniors with a 3.00 grade point average at the University. These scholarships are awarded to sons or daughters of University Guild members. It may be renewed if the student maintains a 3.00 or better grade point average. Application must be made for this scholarship. Application forms are available from the Office of Admissions or from the Guild Office.
- **Datatel Scholars Foundation Scholarships.** Sponsored by Datatel Inc., the leading independent provider of information management systems to institutions of higher learning, for eligible students attending a Datatel client university. Scholarship amount ranges from \$700 to \$2,000, based on merit. Scholarship candidates recommended to Datatel Scholars Foundation by Office of Financial Aid based on preliminary application. Semifinalists complete formal application in early February. Scholarship recipients are notified by Datatel in May. Note: There is no guarantee that one of the recommended semifinalists from Valparaiso University will be selected as a scholarship recipient.
- **Indiana Nursing Scholarship Fund Program.** Administered by the State Student Assistance

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Commission of Indiana. Eligible student must be Indiana resident, agree in writing to work as a nurse in an Indiana health care setting for at least the first two years following graduation, demonstrate financial need, and have a minimum grade point average of 2.0/4.0. Renewable for a total of four years. Students must apply each year. Application forms available in the Office of Financial Aid.

- **Indiana Minority Teacher and Special Education Services Scholarship Program.** Administered by the State Student Assistance Commission of Indiana. Eligible students agree in writing to pursue their teaching career in an Indiana accredited school or vocational rehabilitation or other developmental disability center for three out of the first five years following completion of program. Eligible students must be Indiana resident and United States citizen, minority student seeking teacher certification or a student seeking a Special Education teaching certification or a student seeking an Occupation or Physical Therapy certification, and have a minimum grade point average of 2.0/4.0. Renewable for total of four annual scholarships. Students must reapply each year. Financial need may be considered. Applications available in the Office of Financial Aid.

NO APPLICATION REQUIRED

Listed below are the scholarships awarded annually by Valparaiso University. Valparaiso University Academic Scholarships or Valparaiso University Gift Awards may be funded by these special scholarships. If additional information is required, the student will be contacted by the Office of Financial Aid. Students need 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.

- 40th Reunion Scholarship
- James and JoAnne Albers Scholarship
- Waldemar H. and Alyda Albers Endowed Scholarship
- Anna B. Althans Scholarship
- Alumni Board Endowed Scholarship (PACT)
- Alumni Heritage Endowed Scholarship
- Amoco Foundation, Inc. Scholarship
- John W. Anderson Scholarship
- Reverend Theodore and Vera Andres Memorial Endowed Scholarship
- D. J. Angus-Sciencetech Education Foundation Award
- Robert Augustine Memorial Endowed Scholarship
- Oscar and Wilhelmetta Bahr Endowed Scholarship
- Eric Lee Bandick Endowed Scholarship
- Bark Memorial Endowed Scholarship
- Mr. and Mrs. Harry G. Barr Endowed Scholarship
- Herbert C. Bartelt Endowed Scholarship
- Otto and Gertrude Bartelt Endowed Scholarship (PACT)
- Carl H. Barz Memorial Endowed Scholarship
- Emory and Elsie Bauer Endowed Scholarship
- The Aimee M. L. Becker Memorial Endowed Scholarship
- Millard and Dianne Becker Scholarship Fund
- Dr. and Mrs. Henry Frederick Beckman Endowed Scholarship
- Donald and Eunice Behrman Scholarship
- Victor H. Bergmann Endowed Scholarship
- August and Mildred Bernthal Valparaiso University Scholarship
- Wilfred and Olga Bernthal Scholarship
- Leo and Jean Cunningham Besozzi Scholarship
- Bethel Lutheran Church of University City, Missouri, Endowed Scholarship (PACT)
- Lionel "Bill" Bigman Memorial Scholarship
- Black Law Students Association Scholarship (BLSA)
- Edwin O. Bleich Scholarship
- Charles H. and Elizabeth Blume Endowed Scholarship
- Mrs. Amalie Bokerman Endowed Scholarship
- W. H. and Phyllis Dierker Boltz Endowed Scholarship
- John V. Borgerding Endowed Scholarship
- Mr. and Mrs. Stanley E. Bovim Memorial Endowed Scholarship
- Otis R. and Elizabeth Bowen Family Endowed Scholarship
- Otis R. and Elizabeth Bowen Endowed Scholarship
- Carol Ann Bowman 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
- Norman H. and Catherine C. Brockmeier Scholarship Fund
- Ruth Brown Memorial Endowed Scholarship (PACT)
- Julius C. Bruechner Endowed Scholarship
- William G. Buchinger Endowed Scholarship
- Luella R. and Herbert P. Buetow Endowed Scholarship
- Mrs. Ella M. Burkhart Endowed Music Scholarship
- Allen L. Burreson Memorial Scholarship
- Selma Deeke Busse Endowed Music Scholarship
- Kermit H. Carlson Endowed Scholarship (PACT)
- Paul and Cecilia Carmichael Endowed Scholarship
- Caterpillar Endowed Scholarship
- Olive and Holger Cattau Memorial Endowed Scholarship
- Dr. Eugene J. Chesrow Memorial Endowed Scholarship
- John E. Christen Memorial Endowed Scholarship
- Emma E. Claus Christ College Scholarship
- Emma E. Claus Law Scholarship
- Robert F. and Caroline McMillan Collings Endowed Scholarship
- Community Foundation Incorporated Endowed Nursing Scholarship
- Concordia Lutheran Church, Wilmington, Delaware, Endowed Scholarship (PACT)

- Concordia Lutheran Church, Kirkwood, Missouri, Endowed Scholarship (PACT)
- The Conrad Family Scholarship
- Delma Coovert Memorial Endowed Scholarship
- Kenneth Bayard Copeland and Todd Cushman Copeland Family Memorial Endowed Scholarship
- Eugene Crawford Memorial Endowed Scholarship (PACT)
- Czamanske Family Endowed Scholarship
- Sophia F. Daebel Scholarship in Nursing
- Arthur Vining Davis Endowed Scholarship
- Edwin F. Deicke Endowed Scholarship
- Tom and Violet DeLassus Scholarship
- Delta Upsilon Chapter of Eta Sigma Phi Scholarship
- Harold "Slim" and Betty (Klewin) Denig Endowed Scholarship
- Randy and Linda Dessau Law School Scholarship
- Donna and Lonnie Dodge Endowed Memorial Scholarship
- Sophie Doern Endowed Scholarship
- Wilber C. and Donald W. Dopp Memorial Endowed Scholarship
- Wilbur H. and Marguerite M. Dosland Endowed Scholarship
- Robert K. Duerr and Family Endowed Scholarship
- Hugo and Edna Duesenberg Endowed Scholarship
- Richard W. and Phyllis (Buehner) Duesenberg Endowed Scholarship
- Rupert and Ruth Dunklau Endowed Scholarship
- East Asian Donated Scholarship
- Bruce and Linda Eastmond Award
- Linda Ann Eastmond (Bauer) Memorial Endowed Scholarship
- Charles and Ruth Ebenreiter Family Endowed Scholarship (PACT)
- Reverend Ernest H. Eggers Memorial Endowed Scholarship
- Oliver H. Eggers '36 Memorial Scholarship
- Prof. James F. Ehrenberg Memorial Scholarship
- Reverend and Mrs. P. J. (Myrtle E.) Eickstaedt Endowed Scholarship
- Henry F. and Elsie M. Engel Scholarship
- E. Stanley and Calista Enlund Endowed Scholarship
- Erna J. Erickson Memorial Fund
- Larry Evans Donated Law Scholarship
- Twila Fabrizius Memorial Endowed Scholarship
- Faith Lutheran Church, Lake Forest, Illinois, Endowed Scholarship (PACT)
- Fedder Scholarship
- Ruth E. Findeisen Scholarship
- Helen Firnhaber Memorial Endowed Scholarship (PACT)
- 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. Frerking Endowed Scholarship
- Patterson McLean Friedrich Endowed French Award
- Earl R. Fruehling Endowed Scholarship
- William A. Fuzy Family Endowed Scholarship
- Daniel and Thomas Gahl Endowed Scholarship (PACT)
- Dr. Ernest J. Gallmeyer Memorial Endowed Scholarship
- Bette J. Galow Memorial Scholarship
- Dr. and Mrs. E. C. Galsterer Endowed Scholarship
- Gamma Phi Anniversary (PACT)
- William C. Gast Memorial Endowed Scholarship
- Harold C. Gearing Endowed Scholarship
- Judith D. Gehrs Endowed Scholarship
- Herbert Gerke Scholarship
- Dorothy Goeglein Memorial Donated Scholarship
- Erwin E. Goehring Endowed Scholarship
- Mr. and Mrs. William H. Gouty 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)
- Betty Granberg Endowed Scholarship
- Erwin and Helen Gratzler Endowed Scholarship (PACT) IV and V
- William B. and Nellie Booth Green Endowed Scholarship
- Earl L. Grieger Memorial Endowed Scholarship
- Professor Charles R. Gromley Endowed Scholarship
- Leona M. Groth Memorial Endowed Scholarship
- Charles J. and Anna Gruenbaum Memorial Scholarship in Nursing
- Henry C. and Ura E. Guhl Endowed Scholarship
- Charles A. Halleck Endowed Scholarship
- Arthur E. Hallerberg Memorial Endowed Scholarship (PACT)
- Elsa and Lloyd Halverson Endowed Scholarship
- Clarence and Elsie Hansen Endowed Scholarship
- Walter D. and Helene A. Hansen Endowed Scholarship
- Rev. Dr. Oliver R. and Bertha Harms Family Endowed Scholarship
- Dr. Oliver R. and Bertha Harms Endowed Board Scholarship
- Adolph H. "Mike" Harre Memorial Scholarship
- Edward W. Hartman Memorial Endowed Scholarship
- Rev. Harlan Hartner Endowed Scholarship
- Lilly Hayden Memorial Endowed Scholarship
- Rev. Harry H. Haysbert Endowed Scholarship (PACT)
- William Randolph Hearst Endowed Scholarship
- Malcolm J. Heidt Athletics Scholarship
- Malcolm J. Heidt Endowed Scholarship
- Sarah E. Heidt Scholarship in Nursing
- Walther T. F. and Laura M. Heinicke Endowed Scholarship
- Edward H. Heinze Memorial Scholarship
- Karl T. Helleman Endowed Scholarship
- John and Dorothea Helms Endowed Scholarship
- Dr. Karl H. Henrichs Endowed Scholarship

Financial Aid, Scholarships, Loan Funds

- Karl H. and Luetta M. Henrichs Endowed Scholarship
- Hildegard Herfurth Endowed Scholarship
- John and Rosa Herscher Endowed Scholarship
- Herman C. and Helen Hesse Endowed Scholarship
- Mr. and Mrs. Peter Hessler Endowed Scholarship
- William and Vera Heyne Endowed Bach Scholarships (PACT)
- Charles H. Hickman Memorial Endowed Scholarship
- Dee Hildebrandt Memorial Endowed Scholarship (PACT)
- Mary Hilgemeier Endowed Scholarship
- Dan Hilgendorf Memorial Endowed Scholarship
- Heidi Steskel Hill Endowed Scholarship
- Jack Hiller Law Scholarship
- Rose L. Hilt Memorial Endowed Scholarship
- Walter S. Hiltbold Endowed Scholarship
- History Faculty Merit Scholarship
- Hoepfner, Wagner and Evans Scholarship
- Richard J. Hoerger Endowed Scholarship
- Harold and Margaret Hoffman Endowed Scholarship
- Margaret H. Hoffman Memorial Endowed Scholarship
- Edwin Gustav Hoffmann Scholarship
- Dr. O. C. J. Hoffmann-Dr. A. G. Huegli Endowed Scholarship
- Clara Hofmann Endowed Scholarship in honor of Dr. and Mrs. Andrew Hofmann
- Louis C. Holland Endowed Scholarship
- Oscar Homann Endowed Scholarship
- Hope Lutheran Church, Park Forest, Illinois, Endowed Scholarship (PACT)
- Dr. and Mrs. A. G. Huegli Endowed Scholarship for Leadership
- A. G. Huegli Southeastern Michigan Endowed Scholarship
- Joyce Huegli Memorial Endowed Scholarship
- Goldie Hunt Memorial Endowed Scholarship Fund
- James and Karen Huston Scholarship
- Immanuel Lutheran Church, Michigan City, Indiana, Endowed Scholarship (PACT)
- Incentive Endowed Scholarship (PACT)
- Indian Medical Association of Northwest Indiana
- Judge and Mrs. F. A. Jaeckel Memorial Endowed Scholarship
- David A. Jenny Endowed Scholarship
- Kristina Brockopp Jenny Endowed Scholarship
- Richard F. and Martha W. Jeske Endowed Scholarship
- Jewish Students Scholarship in Law
- Edward Jiede, Jr. Endowed Scholarship
- Mr. and Mrs. Emil Jochum Scholarship
- Ralph and Marilyn Johnson Scholarship
- Ruth Just Endowed Scholarship
- Max Kade Donated Scholarship
- The Irma B. Kampschmidt Endowed Scholarship
- Bud Keller Memorial Endowed Scholarship (PACT)
- Norman W. and Joanne C. Kettner Scholarship
- Susan Kilroy Memorial Scholarship
- Dwight M. Kinder Endowed Memorial Scholarship for Law
- Stephen R. Kinder Endowed Music Scholarship
- Sharon L. King Scholarship for Law Students
- O. Charles and Dorothy Klingsick Endowed Scholarship
- Edwin H. Klinkerman Endowed Scholarship
- Walter C. and Elizabeth K. Klug Memorial Endowed Scholarship
- Ernie T. Knapp Memorial Endowed Scholarship
- Knight Foundation— Minority Scholarship
- John A. Knoepfel Memorial Endowed Scholarship
- Mr. and Mrs. Edwin H. Koeneman Endowed Scholarship
- Erra E. Koenemann (Mrs. Henry F.) Endowed Scholarship
- Eleanor R. and Richard P. Koenig Memorial Endowed Scholarship (PACT)
- Herbert H. and Edith A. Koenig Memorial Endowed Scholarship (PACT)
- Dean Kohlhoff Memorial Award for Excellence in Environment Law
- Martin and Dora Koschmann Scholarship in Church Music
- Jayne Hoffmann Kraegel Memorial Endowed Scholarship
- Laurette M. Kramer Memorial Scholarship
- Matilda M. Kramer Memorial Endowed Scholarship
- George V. Krampien Scholarship in Law
- John W. and Clara A. Krathwohl Endowed Scholarship
- Mr. and Mrs. Gilbert W. Krause Athletic Endowed Scholarship
- Carl Krekeler Endowed Scholarship
- Carl and Viola Krentz Endowed Scholarship
- Reverend Paul G. Krentz Memorial Endowed Scholarship (PACT)
- Ruth Krentz Endowed Scholarship (PACT)
- William H. Kroeger Endowed Scholarship
- William Henry Kroeger Memorial Endowed Scholarship (PACT)
- Krumsieg Scholarship-Loan Fund
- Arlene E. Laesch Endowed Scholarship
- Charles and Meta Laesch Endowed Scholarship
- Clara A. Laesch Endowed Scholarship
- William F. and Florence R. Laesch Endowed Scholarship
- Ernest and Adelaide Laetz Endowed Scholarship
- Ernest C. and Adelaide E. Laetz Scholarship in Business
- Ruth May Landis Scholarship in Church Music
- Erwin A. and Eleanor H. Lange Endowed Scholarship
- Harry and Emma Lange Memorial Endowed Scholarship
- Burton and Maureen Langer Donated Scholarship
- Harry Langer Memorial Scholarship
- Helen Langer Memorial Scholarship
- Steven and Diane Langer Law Scholarship
- Edward and Margaret Larson Endowed Scholarship
- Tommy Lasorda Endowed Scholarship
- Richard H. Laube Memorial Endowed Scholarship (PACT)
- Charles and Gladys Laue Endowed Scholarship
- The Laura and Lindsay Endowment Fund
- Law School General Scholarship
- Blase Lazzara Memorial Endowed Scholarship Fund
- A. J. W. and Elfrieda M. LeBien Endowed Scholarship
- Dr. & Mrs. H. A. P. Leininger Endowed Scholarship
- Edith Lessor Endowed Scholarship
- George and Floretta Letz, Sr. Endowed Scholarship

- Stephen and Elaine Lewis Scholarship
- Ernest and Clara M. Lichtfuss Endowed Scholarship
- John A. Liechti Endowed Scholarship
- David A. and Jane E. Lienau Endowment
- Nancy Lieneck Memorial Endowed Scholarship
- David L. Litten Endowed Scholarship
- George H. Liu Memorial Scholarship
- Scott G. Lohr Endowed Scholarship
- Mr. and Mrs. Orval M. Lohse Endowed Scholarship
- Lynette and Norman Luekens Endowed Scholarship
- Lutheran Brotherhood Challenge Endowed Scholarship
- Lutheran Deaconess Endowed Scholarships (PACT)
- Esther and Karl Lutze Minority Endowed Scholarship (PACT)
- Walter A. MacNary Memorial Endowed Scholarship
- Orval L. and Maud L. Mains Memorial Endowed Scholarship
- Dr. and Mrs. Max K. Mallon Endowed Scholarship
- Dan and Louise Manka 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
- Martin Family Scholarship—In Thy Light
- Margery M. Martin Scholarship
- G. H. Maskus Endowed Scholarship
- Russell H. Matthias Endowed Scholarship
- Irene Mayer Endowed Scholarship
- Katherine McCallum Endowed Scholarship
- James H. McGill Memorial Scholarship
- McGregor Fund Endowed Scholarship
- J. Ron & Joanne McLeod Endowed Scholarship
- Vera M. McLeod Memorial Endowed Scholarship
- Mr. and Mrs. A. A. Meitz Endowed Scholarship
- Memorial Endowed Scholarship
- Ernest A. Menzel Endowed Scholarship
- Richard and Ann Hackman Mertz Endowed Fund
- Mr. and Mrs. Dirk Meyer Endowed Scholarship
- Gerhard F. Meyne Endowed Scholarship
- Michigan Student Endowed Scholarship
- Helen Miller Endowed Scholarship
- Minnesota Merit Award
- Dean H. Mitchell Endowed Scholarship
- Marie Moehring Endowed Nursing Scholarship
- Henry F. Moellering Endowed Scholarship
- Alma and Henry Moellering Endowed Music Scholarship Fund
- Dr. and Mrs. Robert C. Moellering, Sr. Endowed Scholarship
- Drs. Charles and Florence Montz Endowed Scholarship
- R. Stuart and Margaret Moore Memorial Endowed Scholarship
- Robert and Nell Moore Law Scholarship
- Morrison Foundation Endowed Scholarship
- Clara Mueller Endowed Scholarship
- H.F.C. Mueller Endowed Scholarship
- Samuel A. Mueller Endowed Scholarship
- Gail (nee Hendrickson) and Robert Muir Endowed Scholarship
- Martin David Mundt Memorial Endowed Scholarship (PACT)
- Hildegard Must Memorial Scholarship
- George L. and Mary S. Myers Endowed Scholarship
- Max G. and Judith E. Nagel Scholarship
- Nancy Wehmeier Nagel and Robert B. Nagel Scholarship
- National Association of Purchasing Management, Northwest Indiana Scholarship in Business
- Mr. and Mrs. Martin J. Nehring Endowed Scholarship
- Shirley J. Neitzel Memorial Organ Scholarship
- J. Melvin and Lucille G. Nelson Endowed Psychology Scholarship
- Faye Newton Memorial Endowed Scholarship (PACT)
- Nickless Family Scholarship
- Marilyn Niequist Memorial Endowed Scholarship
- Marilyn L. Norstedt Memorial Endowed Prize
- Nicholas H. and Marguerite Lilly Noyes Endowed Scholarship Fund
- Nuechterlein Endowed Scholarship (PACT)
- Audrey C. and Duane Nuechterlein Donated Scholarship
- Carl and Arnold C. Nuechterlein Endowed Scholarship
- Duane and Audrey Nuechterlein Deaconess Scholarship
- Joel S. Oberman Endowed Basketball Scholarship
- Oberst Family Endowed Scholarship
- Arnold W. Oestmann Endowed Scholarship
- Eleanor Davis Oexemann Scholarship for the School of Law
- Ohio Annual Endowed Scholarship
- Rev. Armin and Evelyn Oldsen Endowed Scholarship
- Dr. Kraig Olejniczak Power Engineering Scholarship (formerly IEEE)
- Helen Mae Olson Memorial Endowed Scholarship
- Walter E. Olson Memorial Scholarship
- Orling Family Endowed Scholarship (PACT)
- Dr. Richard Oster Scholarship
- Thomas and Joyce Otten Memorial Endowed Scholarship (PACT)
- Our Redeemer Lutheran Church, South Bend, Indiana Endowed Scholarship
- Our Savior Lutheran Church Congregation of Raleigh, North Carolina, Endowed Scholarship (PACT)
- Shirley Paape Scholarship Endowment
- Pacific Hills Lutheran Church, Omaha, Nebraska, Endowed Scholarship (PACT)
- Mollie V. Page Endowed Scholarship
- Pauling Music Endowed Scholarship (PACT)
- Professor Charles G. Peller and John Van Alstyne Peller Memorial Endowed Scholarship
- Peters Family West Michigan Endowed Scholarship
- Gilbert A. Peters Endowed Scholarship
- Professor Carol Petersen Award in French and German
- Arthur F. Peterson Endowed Scholarship
- Ella Pfeifer Endowed Scholarship
- Margaret A. Pfeiffer Endowed Scholarship
- Irma Pflueger Memorial Endowed Lutheran Deaconess Scholarship (PACT)
- Phi Delta Theta Class of '84 Endowed Scholarship (PACT)

Financial Aid, Scholarships, Loan Funds

- Phi Mu Alpha Endowed Scholarship (PACT)
- Paul F. Phipps Merit in English Endowed Scholarship (PACT)
- Hattie Lowe Pierce Endowed Scholarship
- Pilgrim Evangelical Lutheran Church of Detroit Memorial Endowed Scholarship
- Edward and Marie Plucinski Scholarship
- Arthur H. Poepp Memorial Endowed Scholarship
- Arthur E. Pohlman Endowed Scholarship
- Pohlman Family Endowed Scholarship
- Paul V. and Evelyn A. Ponitz Scholarship
- The Rodney B. Poppe Endowed Scholarship
- Porter County Cancer Society Endowed Scholarship (PACT)
- Professor Henry W. and Laura M. Prah Scholarship
- Mrs. Hazel Predoehl Memorial Endowed Scholarship
- Presidential Endowed Scholarship for Minorities
- President's Student Assistance Scholarship
- Vernon F. and Katherine H. Radde Endowed Scholarship
- Charles E. Laue and Herman R. Rahn Memorial Scholarship
- Emma and William Rakowsky Memorial Endowed Scholarship
- Elizabeth Raney Endowed Scholarship
- Charles and Elizabeth Rau Scholarship
- Rev. and Mrs. Arthur L. Reinke and the Rev. and Mrs. Augustus Reinke Memorial Endowed Scholarship
- Reutlingen Semester Scholarship
- Alton F. Riethmeier Memorial Endowed Alumni Scholarship (PACT)
- Mr. and Mrs. Carl Rittberger Scholarship
- Sandra Felton Roberts Memorial Endowed Nursing Scholarship (PACT)
- Walter and Dorothy Rogosheske Scholarship (PACT)
- Cora H. Rosin Memorial Endowed Scholarship
- Waldemar M. Roth Memorial Endowed Scholarship
- Leona Rotzoll and Elsie Skusa Memorial Endowed Scholarship
- Walter C. and Gudrun M. Rubke Endowed Scholarship
- Adele Ruetters 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
- Clemonce and Glenice Sabourin Endowed Scholarship (PACT)
- Gerhard Salzmänn Endowed Scholarship
- San Diego Guild/Alum Endowed Scholarship (PACT)
- Judy Satikas and Julie Kline Memorial Endowed Scholarship
- James Savage Endowed Scholarship Fund
- Walter W. Schantz Endowed Scholarship
- Frederick A. Schaper Endowed Scholarship
- Gilbert L. Schaus Scholarship
- Philip Scheid Family Endowed Scholarship
- Lee R. Schlender Memorial Endowed Scholarship
- Walter E. Schmalz Memorial Endowed Scholarship (PACT)
- Jane Conway Schmeckpeper Endowed Scholarship
- Dr. Robert V. Schnabel Endowed Scholarship
- Mr. and Mrs. Henry J. Schneider Endowed Scholarship
- Richard A. Schoenbohm Endowed Music Scholarship (PACT)
- School of Law Alumni Board of Directors Scholarship
- School of Law Board of Visitors Donated Scholarship
- Kermit A. Schottman Scholarship in Law Endowment
- Paul Schrage Endowed Scholarship
- Pastor Carl (Pat) and Bert Schuette Endowed Scholarship (PACT)
- Dr. and Mrs. Ronald Schultz Scholarship
- Rev. and Mrs. Walter G. Schultz Endowed Scholarship
- Andrew and Margaret Schulze Endowed Scholarship Fund (PACT)
- Dorothy Schumacher Scholarship
- John H. Schuth Memorial Scholarship
- The Schwan Family Scholarship Fund
- Dana B. Schwanholt Memorial Endowed Scholarship (PACT)
- Albert F. and Miriam B. Scribner Endowed Scholarship
- Elmer Seebeck Memorial Endowed Scholarship
- Susan E. Seeber Memorial Endowed Scholarship
- Ray and Marie Seegers Family Scholarship
- Seuel Endowed Scholarship
- Carl W. and Caroline D. Seyboldt Endowed Scholarship
- Mr. and Mrs. Hugh O. Sherbert Endowed Scholarship
- Vera L. Sieb Endowed Scholarship
- Sigma Phi Epsilon Undergraduate Endowed Scholarship
- Sigma Tau Gamma Undergraduate Endowed Scholarship
- Helen Slayback Memorial Endowed Scholarship
- J. Howard Smith Endowed Scholarship
- Fred Smoke Financial Aid Endowment
- Carl O. Sohre Memorial Scholarship
- Karl and Marjorie Speckhard Donated Scholarship
- St. John Lutheran Church, Lombard, Illinois, Endowed Scholarship (PACT)
- St. John's Lutheran Church, Long Green, Maryland, Endowed Scholarship (PACT)
- Friends of Valparaiso University, St. John's Lutheran Church, Orange, CA
- St. Peter Lutheran Church, Mishawaka, Indiana, Endowed Scholarship (PACT)
- Edward I. P. Staede and Amanda Hall Staede Endowed Scholarship
- Arthur and Cecelia Stamm Endowed Scholarship
- C. V. Starr Scholarship Fund
- Rev. Martin Th. Steege Endowed Scholarship
- J. L. Stendel Family Memorial Endowed Scholarships
- Frederick A. Stendell and Harry E. Stendell Endowed Scholarship
- Paul Stoner Endowed Scholarship
- Jonas and Marit Store Endowed Scholarship Fund
- Alvin A. and Marion S. Stredner Endowed Scholarship
- Stride Donated Law Scholarship
- Mr. and Mrs. Herbert F. Stride Endowed Scholarship
- Fred L. and Selma A. Strieter Memorial Endowed Music Scholarship (PACT)
- Ida S. Strieter Memorial Endowed Scholarship
- George Strimbu Memorial Endowed Arts Scholarship (PACT)

- William R. and Georgette M. Strutz Endowed Scholarship
- Student Athletes Scholarship
- Margaretta Sackville Tangerman Endowed Scholarship
- Mr. and Mrs. Paul E. Tegge Memorial Endowed Scholarship
- Lawrence E. Teich Endowed Scholarship
- Louis Thoeming Endowed Scholarship
- John David Thomas Endowed Scholarship
- James A. Tiemann Memorial Scholarship
- Bertha S. Tietjen Endowed Scholarship
- Rev. Kenneth O. Timm Endowed Scholarship
- Laura E. Traue Endowed Scholarship
- Turk Family Endowed Scholarship
- Margot Ann Uehling Endowed Scholarship
- George C. Uhlir Scholarship
- Dr. and Mrs. H. L. Ulbrich Endowed Scholarship
- UPS Donated Scholarship
- Wilbur and Gertrude Urbin Memorial Scholarship
- William E. Urschel Endowed Scholarship
- Valparaiso University Board of Directors Endowed Scholarship (PACT)
- Valparaiso Women's Club Endowed Scholarship
- Valparaiso University College of Nursing Endowed Scholarship
- Valparaiso University Guild Scholarship
- Van Eeckeren Family Endowed Scholarship
- Glenn S. and Dawn J. Vician Scholarship
- Merlyn and Judith Vocke Donated Scholarship
- Ed. L. Voelz Endowed Scholarship
- Theodore H. and Paula Vogel Endowed Scholarship
- Henry and Anna Waldschmidt Memorial Scholarship
- F. G. Walker Endowed Scholarship
- David J. Walton Memorial Endowed Scholarship
- Frances Tilton Weaver Scholarship - Law
- Florence E. and John F. Weck Scholarship
- Wehrenberg Endowed Scholarship
- Dr. and Mrs. J. Frederic Wenchel Memorial Endowed Scholarship
- Walter G. Wendland Endowed Scholarship
- Clara and Spencer Werner Endowed Law Scholarship
- Clara and Spencer Werner Endowed Scholarship
- Mr. and Mrs. L.W. Werner Endowed Scholarship
- Janet Wesemann Scholarship-Loan Fund
- Edith M. Will Endowed Scholarship
- Otherine Wilson Endowed Scholarship
- Wisconsin Endowed Merit Award
- Mathew Witter Memorial Endowed Scholarship (PACT)
- Charles W. Wolf Memorial Endowed Scholarship
- Mathilda E. Wolff Memorial Endowed Scholarship
- Gilbert R. and Vivian P. Wolter Endowed Scholarship
- Zaborsky Endowment for Social Work
- Dr. Joyce R. Zastrow Scholarship in Vocal Music
- Zion Lutheran Church, Kalamazoo, Michigan, Endowed Scholarships (PACT)
- Zuehlke Endowed Scholarship

Loan Funds

- The Garland Loan Fund. Loans for students majoring in the sciences or mathematics. 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.
- 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.
- Henry Strong Educational Foundation. Provides loans to qualified full-time upperclass students under thirty years of age.

LOAN REPAYMENT TERMS

Each of the loan programs contains 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 2006–2007

Kurt Douglas Acton, Ph.D., Associate Professor of Education; Central Michigan University (B.S., 1968; M.B.A., 1972); The University of Illinois at Urbana—Champaign (Ph.D., 1983)

Mark Leslie Adams, J.D., Professor of Law; Williams College (B.A., 1983); University of Chicago (J.D., 1988)

¹James William Albers, Th.D., Professor of Theology; the Richard P. Baepler Distinguished Professor; Concordia Senior College (B.A., 1959); Concordia Seminary, St. Louis (M.Div., 1963; S.T.M., 1964; Th.D., 1972)

Zuhdi Y. Aljobeh, P.E., Ph.D., Associate Professor of Civil Engineering; The University of Toledo (B.S.C.E., 1986; M.S.C.E., 1987; Ph.D., 1994)

Karen Sue Allen, Ph.D., Assistant Professor of Mathematics and Computer Science; Butler University (B.S., 1975; M.A., 1978); Purdue University (Ph.D., 2006)

Elise Marta Alverson, A.P.R.N., M.S.N., F.N.P., Lecturer in Nursing; St. Louis University (B.S.N., 1972); Ball State University (M.S.N., 1984); Valparaiso University (F.N.P., 1996)

Debra Collins Ames, Ph.D., Associate Professor of Foreign Languages and Literatures; Holy Cross College (A.B., 1980); University of Virginia (M.A., 1982; Ph.D., 1987)

¹On Sabbatical Leave, Spring Semester

²On Sabbatical Leave, Fall Semester

President Harre

Richard A. AmRhein, M.L.S., Dean, Library Services with rank of Professor; Eastern Illinois University (B.M., 1978; M.A., 1981); Baylor University (M.M., 1980); Rutgers University (M.L.S., 1990)

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Roy A. Austensen, Ph.D., Professor of History; Provost and Vice President for Academic Affairs; Concordia College, River Forest (B.S., 1963); University of Illinois at Urbana-Champaign (M.A., 1964; Ph.D., 1969); University of Vienna

²Larry Robert Baas, Ph.D., Professor of Political Science; University of Wisconsin—Whitewater (B.Ed., 1968); Kent State University (M.A., 1969; Ph.D., 1976)

Lihui Bai, Ph.D., Assistant Professor of Information and Decision Sciences in the College of Business Administration; Inner Mongolia University (B.S., 1994); Chinese Academy of Science (M.S., 1999); University of Florida (Ph.D., 2004)

Rebecca Elizabeth Bailey, M.A., Lecturer in Communication; Indiana University (B.A., 1991; M.A., 1995)

Teresa Marie Bals-Elsholz, Ph.D., Assistant Professor of Geography and Meteorology; University of Nebraska—Lincoln (B.S., 1987); Texas Tech University (M.S., 1990); State University of New York at Albany (Ph.D., 2002)

Mark Walter Bartusch, Ph.D., Associate Professor of Theology; Valparaiso University (B.A., 1986); Lutheran School of Theology (M.Div., 1990; Th.M., 1996; Ph.D., 2000)

- Matthew Lee Becker, Ph.D., Associate Professor of Theology; Concordia University, Portland (B.A., 1984); Concordia Seminary (M.Div., 1988); University of Chicago (M.A., 1990; Ph.D., 2001)
- Meredith William Berg, Ph.D., Professor of History; St. Olaf College (B.A., 1959); Tulane University (M.A., 1962; Ph.D., 1966)
- Bruce Gilbert Berner, LL.M., Professor of Law; the Louis and Anna Seegers Chair in Law; Associate Dean for Academic Affairs, School of Law; Valparaiso University (B.A., 1965; LL.B., 1967); Yale University (LL.M., 1978)
- John Paul Bernthal, D.M.A., Associate Professor of Music; Valparaiso University (B.M., 1970); University of Rochester (M.M., 1972); University of Illinois (D.M.A., 1982)
- Karen S. Berrier, Ph.D., Lecturer in Foreign Languages and Literatures; Miami University (B.A., 1971); Indiana University (M.A., 1973; Ph.D., 1980)
- Jeffrey David Biebighauser, M.A., Visiting Instructor in Foreign Languages and Literatures; Valparaiso University (B.A., 2005); The University of Nottingham (M.A., 2006)
- Jennifer Irene Hellmers Bjornstad, Ph.D., Assistant Professor of Foreign Languages and Literatures; St. Olaf College (B.A., 1991); University of Wisconsin—Madison (M.A., 1994; Ph.D., 2001)
- Pamela Elizabeth Blackmon, Ph.D., Assistant Professor of Political Science; Virginia Commonwealth University (B.A., 1994); University of South Florida (M.A., 1998); University of Miami (Ph.D., 2004)
- ³Robert Frank Blomquist, J.D., Professor of Law; the Michael and Dianne Swygert Research Fellow; University of Pennsylvania (B.S., 1973); Cornell University (J.D., 1977)
- Alan Bloom, Ph.D., Assistant Professor of History; University of California, Santa Barbara (B.A., 1987); Duke University (M.A., 1995; Ph.D., 2001)
- ⁴Ivan Edward Bodensteiner, J.D., Professor of Law; Loras College (B.A., 1965); University of Notre Dame (J.D., 1968)
- Joseph Andrew Bogнар, D.M.A., Associate Professor of Music; Valparaiso University (B.M., 1994); University of Illinois at Urbana-Champaign (M.M., 1996; D.M.A., 2000)
- Thomas E. Boyt, D.V.M., Ph.D., Professor of Marketing; Dean, College of Business Administration; United States Air Force Academy (B.S., 1973); Colorado State University (D.V.M., 1980); University of Oklahoma (Ph.D., 1994)
- Allan Robert Brandhorst, Ph.D., Professor of Education; University of Missouri—Columbia (B.S.Ed., 1963; M.Ed., 1970; Ph.D., 1973)
- Lydia Katherine Brauer, Ph.D., Assistant Professor of Education; Valparaiso University (B.A., 1988); Bowling Green State University (M.A., 1998); Ohio State University (Ph.D., 2006)
- Paul Herman Brietzke, J.D., Ph.D., Professor of Law; Lake Forest College (B.A., 1962); University of Wisconsin—Madison (J.D., 1969); University of London (Ph.D., 1979)
- Geneva Olivia Brown, J.D., Assistant Professor of Law; University of Wisconsin (B.A., 1988; J.D., 1993); University of Illinois—Chicago (M.A., 2003)
- Janet Marie Brown, R.N., Ph.D., Professor of Nursing; Dean, College of Nursing; Indiana University (B.S.N., 1969); St. Xavier College (M.S.N., 1983); University of Wisconsin—Milwaukee (Ph.D., 1995)
- ⁵Elizabeth Marie Bruch, J.D., Associate Professor of Law; Valparaiso University (B.A., 1986); University of Wisconsin—Madison (J.D., 1989)
- ⁶Lorraine S. Brugh, Ph.D., Associate Professor of Music; the Kruse Organist Professor; Northwestern University (B.M., 1973; M.M., 1974; Ph.D., 1998); Garrett-Evangelical Theological Seminary (M.T.S., 1994)
- Carolyn Ann Brunson, M.S., Instructor in Physical Education; Valparaiso University (B.S., 2000; M.S., 2006)
- Mark Budnik, Ph.D., Assistant Professor of Electrical and Computer Engineering; University of Illinois at Urbana (B.S., 1990); Purdue University (M.S., 1999; Ph.D., 2006)
- Gretchen Townsend BuggeIn, Ph.D., Associate Professor of Humanities and American Studies in Christ College; Dartmouth College (B.A., 1985); University of Delaware (M.A., 1987); Yale University (Ph.D., 1995)
- Martin Thomson Buinicki, Ph.D., Assistant Professor of English; University of Northern Colorado (B.A., 1995; M.A., 1997); The University of Iowa (Ph.D., 2003)
- ⁷Marcia JoAnn Bunge, Ph.D., Professor of Humanities and Theology in Christ College; St. Olaf College (B.A., 1976); University of Chicago (M.A., 1979; Ph.D., 1986)
- ⁸Elizabeth Ann Burow-Flak, Ph.D., Associate Professor of English; Augsburg College (B.A., 1986); University of Texas at Austin (Ph.D., 1997)
- Michael J. Bushbaum, J.D., M.Lib., Associate Law Librarian for Access Services with rank of Associate Professor; University of Nevada, Reno (B.S., 1990); Lewis and Clark College (J.D., 1993); University of Washington (M. Lib., 1994)
- Edward J. Byrne, Ph.D., Professor of English; Brooklyn College (B.A., 1974; M.F.A., 1976); University of Utah (Ph.D., 1983)
- Rebecca J. Helm Byrum, M.L.S., Government Information Services Librarian with rank of Assistant Professor; Ball State University (B.S., 1978); Indiana University (M.L.S., 1979)

³On Sabbatical Leave, Fall Semester⁴On Sabbatical Leave, Fall Semester⁵On leave of absence, Spring Semester⁶On Sabbatical Leave, Fall Semester⁷On leave of absence, Fall Semester⁸On Sabbatical Leave, Fall Semester

University Personnel

- James Caristi, Ph.D., Professor of Mathematics and Computer Science; Florida State University (B.A., 1971); The University of Iowa (Ph.D., 1974)
- Kieth Alton Carlson, Ph.D., Assistant Professor of Psychology; Gustavus Adolphus College (B.A., 1991); University of Nebraska—Lincoln (M.A., 1994; Ph.D., 1997)
- Derrick A. Carter, J.D., Associate Professor of Law; Eastern Michigan University (B.S., 1972); Valparaiso University (J.D., 1975)
- Stefan Ilya Brightman Cartledge, Ph.D., Visiting Assistant Professor of Physics and Astronomy; University of Victoria (B.S., 1992); University of Alberta (M.S., 1996); Northwestern University (Ph.D., 2002)
- Luying Chen, Ph.D., Assistant Professor of Foreign Languages and Literatures; Peking University (B.A., 1990); Nanjing University (M.A., 1992); Brown University (M.A., 2003; Ph.D., 2007)
- Leroy Frederick Christ, C.P.A., Ph.D., Assistant Professor of Accounting in the College of Business Administration; University of Wisconsin—Madison (B.A., 1971; J.D., 1974; M.B.A., 1979); The University of Texas at Austin (Ph.D., 1991)
- Mary York Christ, C.P.A., Ph.D., Associate Professor of Accounting in the College of Business Administration; University of Iowa (B.B.A., 1977); University of Wisconsin—Madison (M.S., 1979); The University of Texas at Austin (Ph.D., 1988)
- Curtis W. Cichowski, J.D., Lecturer in Law; Associate Dean for Administration, School of Law; Carroll College (B.A., 1978); Valparaiso University (J.D., 1981)
- Craig Andrew Clark, M.S., Instructor in Geography and Meteorology; Valparaiso University (B.A., 1991); University of Kansas (M.S., 1994)
- Christopher M. Cock, D.M.A., Professor of Music, the Phyllis and Richard Duesenberg Chair in Lutheran Music; Pacific Lutheran University (B.M., B.M.E., 1982); The University of Arizona (M.M., 1984; D.M.A., 1987)
- Doris E. Cole, Ph.D., Associate Professor of Education; St. Xavier University (B.A., 1975; M.A., 1982); University of Illinois at Chicago (Ph.D., 1997)
- Jay Conison, J.D., Professor of Law; Dean, School of Law; Yale College (B.A., 1975); University of Minnesota, Twin Cities Campus (M.A., 1978; J.D., 1981)
- Ruth Sara Connell, M.S., Reference Services Librarian with rank of Assistant Professor; Muskingum College (B.A., 1998); University of Illinois at Urbana-Champaign (M.S., 2000)
- Addison Gilbert Cook, Ph.D., Senior Research Professor; Wheaton College (B.S., 1955); The University of Illinois (Ph.D., 1959)
- Stewart E. Cooper, Ph.D., Director of Counseling Services with rank of Professor; Adjunct Professor of Psychology; Indiana University (B.A., 1975; M.S., 1977; Ph.D., 1981)
- Nina Maria Corazzo, Ph.D., Associate Professor of Art; the Walter E. Bauer Professor of Art History; Indiana University (B.A., 1969; M.A., 1977; Ph.D., 1981); University of Strasbourg
- Barbara Louise Crumpacker Niedner, M.S.W., Lecturer in Social Work; Valparaiso University (B.S.W., 1983); Indiana University (M.S.W., 1985)
- Sara Running Danger, Ph.D., Visiting Assistant Professor of English; Concordia College, Moorehead (B.A., 1992); South Dakota State University (M.A., 1994); University of Kansas (Ph.D., 2004)
- ⁹Grayson S. Davis, Ph.D., Professor of Biology; George Washington University (B.S., 1970); University of Virginia (Ph.D., 1981)
- Richard Edwin DeMaris, Ph.D., Professor of Theology; University of Illinois at Urbana—Champaign (B.A., 1976); Princeton Seminary (M.Div., 1980); Columbia University (M.Phil., 1986; Ph.D., 1990)
- Sarah Glenn DeMaris, Ph.D., Professor of Foreign Languages and Literatures; University of Illinois (B.A., 1977); Princeton University (M.A., 1980; Ph.D., 1983)
- Sheryl Anne DeMik, Ph.D., Assistant Professor of Education; Indiana State University (B.S., 1979); Valparaiso University (M.S.S.E., 1998); Purdue University (Ph.D., 2006)
- Jeffrey Scott Doebler, Ph.D., Associate Professor of Music; Luther College (B.A., 1982); Valparaiso University (M.M., 1987); University of Minnesota, Twin Cities Campus (Ph.D., 1994)
- Laura Gaston Dooley, J.D., Professor of Law; University of Arkansas (B.A., 1982); Washington University (J.D., 1986)
- Michael Louis Doria, Ph.D., Associate Professor of Mechanical Engineering; Case Institute of Technology (B.S., 1961; M.S., 1963); Johns Hopkins University (Ph.D., 1968)
- ¹⁰Lisa Maugans Driver, Ph.D., Assistant Professor of Theology; Ball State University (B.A., 1988); University of Toronto (M.A., 1989; Ph.D., 1996)
- Maryann Dudzinski, Ed.D., Associate Professor of Education; Northern Illinois University (B.S.Ed., 1974; M.S.Ed., 1979; Ed.D., 1989)
- Gregory Scott Duncan, Ph.D., Assistant Professor of Mechanical Engineering; Purdue University (B.S., 1990); University of Florida (Ph.D., 2006)
- Randa Jane Duvick, Ph.D., Associate Professor of Foreign Languages and Literatures; Luther College, (B.A., 1978); University of Chicago (M.A., 1980; Ph.D., 1988)
- Laurie Susan Eberhardt, Ph.D., Associate Professor of Biology; Earlham College (B.A., 1985); University of Florida (M.S., 1990; Ph.D., 1994)
- Steven Carl Engerer, Ph.D., Associate Professor of Chemistry; Michigan State University (B.S., 1975); University of Chicago (Ph.D., 1982)

⁹On Sabbatical Leave, Spring Semester

¹⁰On half Sabbatical Leave, Fall and Spring Semesters

- Martin Karl Erhardt, Ph.D., Assistant Professor of Chemistry; Valparaiso University (B.S., 1996); University of Illinois at Urbana-Champaign (Ph.D., 2001)
- Gene R. Evans, Ph.D., Associate Professor of Biology; Valparaiso University (B.S. in H.E., 1963); The State University of Iowa (M.S., 1966); Purdue University (Ph.D., 1986)
- Mark S. Farmer, Ph.D., Assistant Professor of Foreign Languages and Literatures; University of California, Irvine (B.A., 1993); Loyola University, Chicago (M.A., 1996; Ph.D., 2000)
- John William Feaster, Ph.D., Professor of English; the Walter G. Friedrich Professor of American Literature; Valparaiso University (B.A., 1963); Northern Illinois University (M.A., 1966); Purdue University (Ph.D., 1970)
- Linda Carol Ferguson, D.M.A., Professor of Music; University of Missouri—Kansas City (B.M., 1968; M.M., 1970; D.M.A., 1978)
- Andrew Scott Finstuen, Ph.D., Lilly Fellow and Lecturer in Humanities and History; Pacific Lutheran University (B.A., 1999); Boston College (M.A., 2003; Ph.D., 2006)
- Richard W. Freeman, Ph.D., Assistant Professor of Electrical and Computer Engineering; Iowa State University (B.S., 1988); Southern Methodist (M.B.A., 1993); Iowa State University of Science and Technology (Ph.D., 2004)
- Dennis Friesen-Carper, D.M.A., Associate Professor of Music; the Frederick A. and Mazie N. Reddel Professor of Music; Bethel College (B.A., 1979); Rice University (M.M., 1985, D.M.A., 1996)
- Barbara Gaebel-Morgan, M.S.W., Lecturer in Social Work; Valparaiso University (B.A., 1970); George Williams College (M.S.W., 1987)
- Edward McGlynn Gaffney, Jr., LL.M., Professor of Law; St. Patrick's College (B.A., 1963); Gregorian University, Rome (S.T.L., 1967); Catholic University of America (J.D., 1974; M.A., 1975); Harvard University (LL.M., 1976)
- Bharath Ganesh Babu, M.Sc., Instructor in Geography and Meteorology; Presidency College (B.Sc., 1995); University of Madras (M.Sc., 1997)
- Alison Louise Ganze, Ph.D., Assistant Professor of English; Arizona State University (B.A., 1996; M.A., 1999); University of Oregon (Ph.D., 2004)
- Kevin Paul Geiman, Ph.D., Associate Professor of Philosophy; Xavier University (A.B., 1983); Washington University (A.M., 1987; Ph.D., 1988); Goethe University
- Alex Craig Geisinger, LL.M., Professor of Law; Associate Dean for Faculty Development; Franklin and Marshall College (B.A., 1987); University of Connecticut (J.D., 1992); Harvard University (LL.M., 1996)
- Marcia Lou Gienapp, J.D., Professor of Law; Valparaiso University (B.A., 1973; J.D., 1977)
- Delphina Hopkins Gillispie, M.S., Assistant Professor of Education and Biology; Berea College (B.A., 1973); Eastern Kentucky University (M.S., 1975)
- Richard Alan Gillman, D.A., Professor of Mathematics and Computer Science; Ball State University (B.S., 1979; M.A., 1981); Idaho State University (D.A., 1986)
- Elizabeth Gingerich, J.D., Assistant Professor of Business Law in the College of Business Administration; Indiana University (B.A., 1981; J.D., 1985)
- Michael S. Glass, Ph.D., Assistant Professor of Mathematics and Computer Science; Illinois Institute of Technology (M.S., 1986; Ph.D., 1998)
- ¹¹Naomi Joy Goodman, Dip. L., Technical Services Librarian with rank of Associate Professor in the School of Law; University of Queensland (B.A., 1968); University of New South Wales (Library Science Diploma, 1969)
- ¹²Thomas Evan Goyne, Ph.D., Associate Professor of Chemistry; Union College (B.S., 1978); University of California, Los Angeles (Ph.D., 1983)
- Christina Hubbert Grabarek, Ph.D., Assistant Professor of Education; Western Illinois University (B.S., 1989; M.S., 1990); Ball State University (Ph.D., 1994)
- ¹³Christoffer-Hinrich Grundmann, Prof. Dr. theol. habil., the John R. Eckrich University Chair in Religion and the Healing Arts; University of Hamburg (Mag.theol., 1977; Dr.theol., 1992; Dr. theol. habil., 1996; Prof., 2001)
- Donna J. Guydan, C.P.A., M.B.A., LL.M., Lecturer in Accounting and Business Law in the College of Business Administration; University of Pittsburgh (B.S., 1972; M.B.A., 1977); Valparaiso University (J.D., 1992); DePaul University (LL.M., 1998)
- Michael John Hagenberger, Ph.D., Assistant Professor of Civil Engineering; Bucknell University (B.S., 1992); Cornell University (M.E., 1993); The University of Texas at Austin (Ph.D., 2004)
- ¹⁴Carter Fredric Hanson, Ph.D., Associate Professor of English; Luther College (B.A., 1992); University of Iowa (M.A., 1996; Ph.D., 1998)
- Franklin Taylor Harkins, Ph.D., Lilly Fellow and Lecturer in Humanities and Theology; University of North Carolina at Chapel Hill (B.S., 1996); Duke University (M.Div., 1999); University of Notre Dame (Ph.D., 2005)
- Alan F. Harre, Ph.D., Professor of Theology; President of the University; Concordia Senior College (B.A., 1962); Concordia Seminary, St. Louis (M.Div., 1966); Presbyterian School of Christian Education (M.A., 1967); Wayne State University (Ph.D., 1976)
- John B. Harrison, M.S.Ed., Assistant Professor of Education; Concordia University River Forest (B.A., 1988); Indiana University (M.S.Ed., 2002)

¹¹Retired June 30, 2007

¹²On Sabbatical Leave, Spring Semester

¹³On Sabbatical Leave, Spring Semester

¹⁴Director, University Overseas Center, Cambridge, England

University Personnel

- Daniel W. Hart, P.E., Ph.D., Professor of Electrical and Computer Engineering; Valparaiso University (B.S.E.E., 1970); Purdue University (M.S.E., 1975; Ph.D., 1985)
- Gail Hartzell, M.L.S., Acquisitions Librarian with rank of Assistant Professor in the School of Law; Kent State University (B.A., 1968); Indiana University (M.L.S., 1992)
- Matthew Sigurd Hedstrom, M.A., Lilly Fellow and Lecturer in Humanities and American Studies; Haverford College (B.A., 1992); The University of Texas at Austin (M.A., 1997)
- George Charles Heider, Ph.D., Visiting Professor of Theology; Concordia Senior College (B.A., 1975); Concordia Theological Seminary (M.Div., 1979); Yale University (M.A., 1980; M.Phil., 1982; Ph.D., 1984)
- James P. Henderson, Ph.D., Senior Research Professor; Beloit College (B.A., 1960); Northern Illinois University (M.A., 1967; Ph.D., 1977)
- Gregg Allen Hertzlieb, M.F.A., Director, Brauer Museum of Art with rank of Instructor; School of Art Institute of Chicago (B.F.A., 1987; M.F.A., 1989); University of Illinois at Chicago (M.Ed., 1991)
- Garland Fisher Hicks, Jr., Ph.D., Associate Professor of Biology; St. Lawrence University (B.S., 1967); Michigan State University (Ph.D., 1975)
- Todd Christopher Hillwig, Ph.D., Assistant Professor of Physics and Astronomy; Anderson University (B.A., 1993); Ball State University (M.Sc., 1995); Indiana University (M.A., 1998; Ph.D., 2001)
- Kevin Hoffman, Ph.D., Lecturer in Humanities in Christ College; Valparaiso University (B.A., 1993); Fordham University (M.A., 1996; Ph.D., 2000)
- Patricia Marie Hogan-Vidal, M.L.S., Media Cataloging Services Librarian with rank of Assistant Professor; Saint Mary's College (B.A., 1980); Indiana University (M.L.S., 1985)
- Sarah Holterhoff, M.A.L.S., Government Information Reference Librarian with rank of Associate Professor in the School of Law; Ohio State University (B.S.Ed., 1970); University of Wisconsin—Milwaukee (M.A.L.S., 1975)
- Sheryl Lynn Honig, M.A., Assistant Professor of Education; Concordia Teachers College (B.S., 1983); University of South Florida (M.A., 1994)
- Jennifer Jill Hora, Ph.D., Assistant Professor of Political Science; University of Wisconsin at Eau Claire (B.A., 1997); University of North Carolina at Chapel Hill (M.A., 2001; Ph.D., 2004)
- Stacy Ellen Hoult, Ph.D., Assistant Professor of Foreign Languages and Literatures; Millikin University (B.A., 1989); University of Missouri (M.A., 1991); University of Chicago (Ph.D., 1999)
- Bruce J. Hrivnak, Ph.D., Professor of Physics and Astronomy; University of Pennsylvania (B.A., 1971; Ph.D., 1980)
- Scott G. Huelin, Ph.D., Assistant Professor of Humanities in Christ College; University of North Carolina at Chapel Hill (B.A., 1988; M.A., 1992); University of Chicago (Ph.D., 2002)
- 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
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- ¹⁶Rebecca Jean Huss, LL.M., Professor of Law; University of Northern Iowa (B.A., 1989); University of Richmond (J.D., 1992); The University of Iowa (LL.M., 1995)
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- ¹⁷Witness Jani, M.A., Assistant Professor of Psychology; Moody Bible Institute (B.A., 1993); Trinity International University (M.A., 1995; M.A., 2001)
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- ¹⁸Eric W. Johnson, Ph.D., Associate Professor of Electrical and Computer Engineering; the Paul and Cleo Brandt Professor of Engineering; Valparaiso University (B.S.E.E., 1987); University of Notre Dame (M.S.C.S.E., 1994; Ph.D., 1996)
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¹⁵Director, University Overseas Center, Hangzhou, China, Fall Semester

¹⁶On leave of absence, Fall Semester; on Sabbatical Leave, Spring Semester

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- Frederick W. Langrehr, Ph.D., Professor of Marketing in the College of Business Administration; the Paul H. Brandt Professor of Business; Valparaiso University (B.A., 1965); Northern Illinois University (M.S., 1968); University of Alabama (Ph.D., 1978)
- Carolyn Sue Leeb, Ph.D., Lecturer in Theology; Massachusetts Institute of Technology (B.S., 1969); San Francisco Theological Seminary (M.Div., 1993); Lutheran School of Theology at Chicago (M.Th., 1996; Ph.D., 1998)
- Joel Phillip Lehmann, Ph.D., Associate Professor of Mathematics and Computer Science; Valparaiso University (B.S., 1968); North Carolina State University (M.A.M., 1971; Ph.D., 1978); DePaul University (M.S., 1984)
- Kenneth R. Leitch, Ph.D., Assistant Professor of Civil Engineering; New Mexico State University (B.S., 1994; M.S., 1997; Ph.D., 2002)
- Rosalie Berger Levinson, J.D., Professor of Law; the Phyllis and Richard Duesenberg Chair in Law; Indiana University (B.A., 1969; M.A., 1970); Valparaiso University (J.D., 1973)
- Marcia Ann Lewis, D.M.A., Associate Professor of Music; University of Wisconsin (B.M., 1963; M.M., 1965); Northwestern University (D.M.A., 1978)
- Zhimin Lin, Ph.D., Associate Professor of Political Science; Fudan University, China (B.Law, 1982); Princeton University (M.P.A., 1985); University of Washington (Ph.D., 1993)
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- Michael William Longan, Ph.D., Associate Professor of Geography and Meteorology; The University of Arizona (M.A., 1995); University of Colorado at Boulder (B.A., 1993; Ph.D., 2000)
- ²⁰Kenneth Harold Luther, Ph.D., Associate Professor of Mathematics and Computer Science; Mount Union College (B.S., 1978); University of Delaware (M.S., 1991); Indiana University (Ph.D., 1998)
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¹⁹On Sabbatical Leave, Spring Semester

²⁰On Sabbatical Leave, Fall Semester

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- ²¹Robert Wayne Manweiler, Ph.D., Professor of Physics and Astronomy; University of Kansas, Lawrence (B.S., 1967); Cornell University (M.S., 1969; Ph.D., 1972); Westminster Theological Seminary (M.Div., 1977)
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- Alberto Enrique Marrero, Ph.D., Assistant Professor of Mathematics and Computer Science; Interamerican University of Puerto Rico (B.A., 1989); University of Puerto Rico (M.S., 1993); University of Iowa (Ph.D., 2005)
- Kristen Lee Mauk, A.P., R.N., C.R.R.N.-A, Ph.D., Associate Professor of Nursing; Valparaiso University (B.S.N., 1981); Purdue University (M.S., 1991); Wayne State University (Ph.D., 2001)
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- ²²Michael K. McCuddy, Ph.D., Professor of Management in the College of Business Administration; the Louis S. and Mary L. Morgal Chair of Christian Business Ethics; Indiana University South Bend (B.S., 1971; M.S.B.A., 1973); Purdue University (Ph.D., 1977)
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- Jian-yun Meng, M.A.L.S., Lecturer in Foreign Languages and Literatures; Nanjing College of Arts (Dip., 1978); Valparaiso University (M.A.L.S., 1993)
- Carlos Miguel-Pueyo, B.A., Assistant Professor of Foreign Languages and Literatures; Universidad de Zaragoza (B.A., 1998); University of Illinois (Ph.D., 2006)
- ²³Patricia Jean Mileham, M.A., Instruction Services Librarian with rank of Associate Professor; University of Wisconsin—Stevens Point (B.A., 1995); The University of Iowa (M.A., 1998)
- Judith Elaine Kimbrough Miller, M.L.S., Special Collections Librarian with rank of Assistant Professor; Valparaiso University (B.A., 1970); North Texas State University (M.L.S., 1976)
- Ki-Hong Min, Ph.D., Assistant Professor of Geography and Meteorology; Kyungpook National University (B.S., 1994); Seoul National University (M.S., 1999); Purdue University (Ph.D., 2005)
- ²⁴James Fraser Moore, Ph.D., Professor of Theology; Park College (B.A., 1968); Luther Theological Seminary (M.Div., 1972); University of Chicago (Ph.D., 1982)
- David Morgan, Ph.D., Professor of Humanities in Christ College; the Phyllis and Richard Duesenberg Chair in Christianity and the Arts; Concordia College, Seward (B.A., 1980); University of Arizona (M.A., 1984); University of Chicago (Ph.D., 1990)
- Gary A. Morris, Ph.D., Associate Professor of Physics and Astronomy; Washington University in St. Louis (A.B., 1989); Rice University (M.S., 1992; Ph.D., 1995)
- Bryan Joseph Morrison, M.S., Assistant Professor of Physical Education; Michigan State University (B.S., 1997); University of Southern California (M.S., 2000); Arizona State University (Ph.D., 2007)
- Seymour Moskowitz, J.D., Professor of Law; Columbia University (B.A., 1963); Harvard University (J.D., 1966)
- Andrew R. Murphy, Ph.D., Associate Professor of Humanities and Political Philosophy in Christ College; University Research Professor; The University of North Carolina at Chapel Hill (B.A., 1989); University of Wisconsin—Madison (M.A., 1991; Ph.D., 1996)
- David Allan Myers, J.D., Professor of Law; Drake University (B.A., 1973); University of Illinois at Urbana—Champaign (J.D., 1976)
- Joanne E. Myers, M.A., Lilly Fellow and Lecturer in Humanities and English; Ohio University (B.A., 1998); University of Chicago (M.A., 2000; Ph.D., 2005)
- Maribel H. Nash, M.S.L.I.S., Visiting Librarian with rank of Assistant Professor in the School of Law; University of Illinois at Urbana (B.A., 2001; M.S.L.I.S., 2006); Washington University (J.D., 2004)
- Bonita Dostal Neff, Ph.D., Associate Professor of Communication; University of Northern Iowa (B.A., 1964; M.A., 1966); University of Michigan (Ph.D., 1973)
- James Melvin Nelson, Ph.D., Associate Professor of Psychology; Eastern Washington University (B.A., 1976); Fuller Theological Seminary (M.Div., 1981); Washington State University (Ph.D., 1987)
- Paul David Newsom, Ph.D., Assistant Professor of Finance in the College of Business Administration; Butler University (B.S., 1993; M.B.A., 1996); University of Arkansas (Ph.D., 2003)
- Frederick Arthur Niedner, Jr., Th.D., Professor of Theology; Concordia Senior College (B.A., 1967); Concordia Seminary, St. Louis (M.Div., 1971; S.T.M., 1973); Christ Seminary-Seminex (Th.D., 1979)
- Clare Kraegel Nuechterlein, J.D., Assistant Professor of Law; Valparaiso University (B.A., 1972; M.A., 1975; J.D., 1978)

²¹On Sabbatical Leave, Fall Semester; on leave of absence, Spring Semester

²²On Sabbatical Leave, Spring Semester

²³On Sabbatical Leave, Spring Semester

²⁴On Sabbatical Leave, Fall Semester

- Sarah Lynn Oldenburg, M.F.A., Assistant Professor of Art; Indiana University (B.A., 1998); American University (M.F.A., 2002)
- Kraig J. Olejniczak, P.E., Ph.D., Professor of Electrical and Computer Engineering; Dean, College of Engineering; Valparaiso University (B.S., 1987); Purdue University (M.S., 1988; Ph.D., 1991)
- William Roys Olmsted, Ph.D., Professor of Humanities in Christ College; University of Michigan (B.A., 1965); University of Paris; University of Chicago (M.A., 1970; Ph.D., 1975)
- Karen Jane Olson, M.M., Instructor in Music; Valparaiso University (B.Mus., 2003); Western Michigan University (M.M., 2005)
- Lee F. Orchard, Ph.D., Professor of Theatre; Concordia University River Forest (B.A., 1975; B.S.Ed., 1975); Northwestern University (M.A., 1979); University of Oregon (Ph.D., 1988)
- Kevin Robert Ostoyich, Ph.D., Assistant Professor of History; University of Pennsylvania (B.A., 1997); Harvard University (A.M., 1998; Ph.D., 2006)
- David Michael Owens, Ph.D., Associate Professor of English; United States Military Academy (B.S., 1977); University of Georgia, Athens (M.A., 1994); Purdue University (Ph.D., 2001)
- Ceyhun Ozgur, C.P.I.M., Ph.D., Professor of Information and Decision Sciences in the College of Business Administration; University of Akron (B.S., 1982; M.S., 1984); Kent State University (Ph.D., 1990)
- Robert Daniel Palumbo, Ph.D., Professor of Mechanical Engineering; the Frederick F. Jenny Professor of Emerging Technology; Valparaiso University (B.S.M.E., 1980); University of Minnesota (M.S.M.E., 1984; Ph.D., 1987)
- Haein Park, Ph.D., Assistant Professor of English; Occidental College (B.A., 1992); Middlebury College (M.A., 1996); University of California, San Diego (Ph.D., 2005)
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- John Steven Paul, Ph.D., Professor of Theatre; Valparaiso University (B.A., 1973); University of Wisconsin—Madison (M.A., 1976; Ph.D., 1981)
- Jason John Paupore, J.D., Visiting Assistant Professor of Communication; Western Michigan University (B.A., 1996); Valparaiso University (J.D., 1999)
- Carole Anne Pepa, R.N., Ph.D., Professor of Nursing; Indiana University (B.S.N., 1967; M.S.N., 1982); University of Illinois at Chicago (Ph.D., 1992)
- Mary Geraldine Persyn, M.L.S., J.D., Associate Professor of Law; Associate Dean of Law Library; Creighton University (A.B., 1967); University of Oregon (M.L.S., 1969); University of Notre Dame (J.D., 1982)
- Melvin Willis Piehl, Ph.D., Professor of Humanities and History in Christ College; Dean, Christ College; Valparaiso University (B.A., 1968); Stanford University (M.A., 1970; Ph.D., 1980)
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- Carmine Paul Polito, P.E., Ph.D., Assistant Professor of Civil Engineering; California Polytechnic State University, San Luis Obispo (B.S., 1986); Virginia Polytechnic Institute and State University (M.S., 1989; Ph.D., 1999)
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- Rachel Rivers Parroquin, M.Ed., Lecturer in Foreign Languages and Literatures; Valparaiso University (B.S., 1985; B.A., 1985; M.Ed., 1990)
- David L. Rowland, Ph.D., Professor of Psychology; Dean, Graduate Studies and Continuing Education; Southern Illinois University (B.A., 1972); University of Chicago (M.A., 1975; Ph.D., 1977)
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- Renee Kristine Schoer, Ph.D., Director of the Center for Church Vocations; Associate Professor of Theology; Concordia College (B.S., 1979); Southern Methodist University (M.R.E., 1996); Boston College (Ph.D., 2006)
- David Lee Schroeder, Ph.D., Associate Professor of Information and Decision Sciences in the College of Business Administration; Oklahoma State University (B.A., 1971; M.S., 1984; Ph.D., 1990)
- Dean Manning Schroeder, Ph.D., Professor of Management in the College of Business Administration; the Herbert and Agnes Schulz Professor of Business; Associate Dean and Director of the Graduate Programs in Management; University of Minnesota, Twin Cities Campus (B.S.M.E., 1974; Ph.D., 1985); University of Montana (M.B.A., 1980)
- Allison Schuette-Hoffman, M.F.A., Assistant Professor of English; Valparaiso University (B.A., 1993); Pennsylvania State University (M.F.A., 2005)
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- David William Scupham, Ph.D., Associate Professor of Biology; The University of Chicago (A.B., 1975); Indiana University (Ph.D., 1985)
- Colleen Marie Seguin, Ph.D., Associate Professor of History; Mount Holyoke College (B.A., 1986); Duke University (M.A., 1989; Ph.D., 1997)
- Kathleen M. Sevener, Ph.D., Assistant Professor of Mechanical Engineering; Michigan Technological University (B.S., 1994); University of California (Ph.D., 1999)
- ²⁵Virginia Colonese Shingleton, Ph.D., Associate Professor of Economics; University of Connecticut (B.A., 1972; M.A., 1974); University of Notre Dame (M.A., 1990; Ph.D., 1994)
- David Bryan Simpson, Ph.D., Assistant Professor of Psychology; The University of Oklahoma (B.A., 1994; Ph.D., 2005); Georgia State University (M.S., 1997)
- ²⁶Robert Sirko, M.F.A., Associate Professor of Art; Indiana University (B.A., 1982); California Institute of the Arts (M.F.A., 1988)
- James Randall Skillen, Ph.D., Lilly Fellow and Lecturer in Humanities and Social Sciences; Wheaton College (B.S., 1996); Gordon-Conwell Theological Seminary (M.A., 2000); Cornell University (Ph.D., 2006)
- Arvid Frederic Sponberg, Ph.D., Professor of English; Augustana College, Illinois (B.A., 1966); University of Chicago (M.A., 1967); University of Michigan (Ph.D., 1973)
- Alan Martin Stalmah, B.A., Lecturer in Theatre; Valparaiso University (B.A., 1986); University of Wisconsin—Madison
- T. D. Shirvel Stanislaus, Ph.D., Associate Professor of Physics and Astronomy; University of Sri Lanka (B.Sc., 1976); University of British Columbia (M.Sc., 1983; Ph.D., 1988)

²⁵On Sabbatical Leave, Spring Semester

²⁶On Sabbatical Leave, Fall and Spring Semesters

- James Dill Startt, Ph.D., Senior Research Professor; University of Maryland (B.A., 1957; M.A., 1961; Ph.D., 1965)
- John Rudolph Steffen, P.E., Ph.D., Professor of Mechanical Engineering; the Alfred W. Sieving Chair of Engineering; Valparaiso University (B.S.M.E., 1966); University of Notre Dame (M.S.M.E., 1968); Rutgers University (Ph.D., 1974)
- Marlane C. Steinwart, M.A.L.S., Instructor in Communication; Valparaiso University (B.A., 1988; M.A.L.S., 1991)
- 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); Universidad de la Republica, Uruguay; University of California, Berkeley (M.A., 1967); Yale University (M.Phil., 1971; J.D., 1973; Ph.D., 1973)
- William O. Stockdale, M.S., Instructor in Mathematics and Computer Science; Northwestern University (B.S., 1972); Purdue University (M.A., 1975; M.S., 1980)
- ²⁷Sandra Ellen Strasser, Ph.D., Professor of Information and Decision Sciences in the College of Business Administration; University of California, Riverside (B.A., 1971); California State University, Fresno (M.B.A., 1986); University of Colorado at Boulder (Ph.D., 1990)
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- James Michael Stück, Ph.D., Associate Professor of Management and International Business in the College of Business Administration; Azusa Pacific University (B.A., 1978; M.B.A., 1978); Claremont Graduate School (Ph.D., 1981)
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- Paul Douglas Tougaw, P.E., Ph.D., Associate Professor of Electrical and Computer Engineering; the Leitha and Willard Richardson Professor of Engineering; Rose-Hulman Institute of Technology (B.S.E.E., 1991); University of Notre Dame (Ph.D., 1995)
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- Dennis Alan Trinkle, Ph.D., Chief Information Officer with rank of Professor; DePauw University (B.A., 1991); University of Cincinnati (M.A., 1993; Ph.D., 1998; M.B.A., 2003)
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- Sandra L. Kowalski, R.N., Ph.D., Associate Professor Emerita of Nursing: Purdue University, Calumet (B.S.N., 1973); St. Xavier College (M.S.N., 1977); University of Notre Dame (Ph.D., 1989)
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- Carl Herman Krekeler, Ph.D., Professor Emeritus of Biology: Concordia Seminary, St. Louis (B.A., 1941; Diploma, 1945); Washington University; The University of Chicago (Ph.D., 1955)
- Gottfried G. Krodol, Th.D., L.H.D. (Hon.), Professor Emeritus of History: Martin Luther Chair in Reformation History: Oberrealschule mit Gymnasium, Neumarkt/Oberpfalz (Arbitur, 1949); Friedrich Alexander University, Erlangen (Th.D., 1955); Carthage College (L.H.D. [Hon.], 1982)
- ⁴Fred Walter Kruger, P.E., M.S.M.E., Professor Emeritus of Mechanical Engineering: Purdue University (B.S.E.E., 1943; B.S.M.E., 1947); University of Notre Dame (M.S.M.E., 1954)
- Dale Guilford Lasky, Ph.D., Professor Emeritus of Theology: Concordia Seminary, St. Louis (B.A., 1951; M.Div., 1954); University of Heidelberg; Yale Divinity School (S.T.M., 1960); The University of Chicago (M.A., 1965; Ph.D., 1972)
- Richard William Lee, Rel.D., Professor Emeritus in Christ College: Valparaiso University (B.A., 1960); The University of Chicago (B.D., 1964); The School of Theology at Claremont (Rel.D., 1968)
- Gilbert Mark Lehmann, Ph.D., Professor Emeritus of Mechanical Engineering: Valparaiso University (B.S.M.E., 1955); Illinois Institute of Technology (M.S.M.E., 1957); Purdue University (Ph.D., 1966)
- William Leroy Leoschke, Ph.D., Professor Emeritus of Chemistry: Valparaiso University (B.A., 1950); University of Wisconsin (M.S., 1952; Ph.D., 1954)
- Mary Lou Logothetis, R.N., D.N.S., Professor Emerita of Nursing: DePaul University (B.S.N., 1966; M.S.N., 1976); Indiana University (D.N.S., 1988)
- Alfred Robert Looman, A.B., Assistant Professor Emeritus: Valparaiso University (A.B., 1942); The University of Chicago
- Theodore Mark Ludwig, Th.D., Ph.D., Surjit Patheja Professor Emeritus of World Religions and Ethics: Professor Emeritus of Theology: Concordia Seminary, St. Louis (B.A., 1958; M.Div., 1961; S.T.M., 1962; Th.D., 1963); The University of Chicago (Ph.D., 1975)
- Edgar Jacob Luecke, Ph.D., Professor Emeritus of Electrical and Computer Engineering: Valparaiso University (B.S.E.E., 1955); University of Notre Dame (M.S.E.E., 1957); Purdue University (Ph.D., 1968)
- Karl Ernst Lutze, B.A., Associate Professor Emeritus of Theology: Concordia Seminary, St. Louis (B.A., 1942; Diploma, 1945)

³Deceased, November 27, 2006⁴Deceased, December 25, 2006

University Personnel

- LeRoy Oscar Anton Martinson, Ph.D., Associate Professor Emeritus of Sociology; Gustavus Adolphus College (A.B., 1949); Augustana Theological Seminary (M.Div., 1953); Columbia University (M.A., 1965); The University of Chicago (Ph.D., 1971)
- Joseph Francis McCall, M.M., Associate Professor Emeritus of Music; Loyola College (A.B., 1951); Peabody Conservatory of Music (M.B., 1954; M.M., 1956); Eastman School of Music
- May Elizabeth McCoy, R.N., M.S.N., Associate Professor Emerita of Nursing; Vanderbilt University (B.S.N., 1950; M.S.N., 1962)
- ⁵Alfred W. Meyer, LL.M., Louis and Anna Seegers Professor Emeritus of Law; Valparaiso University (B.A., 1948; J.D., 1950); Harvard University Law School (LL.M., 1951)
- Arlin Glenn Meyer, Ph.D., Professor of Emeritus English; Calvin College (A.B., 1959); University of Michigan (M.A., 1964); Ohio University (Ph.D., 1967)
- Ellen Ruth Bierwagen Meyer, M.A., Librarian Emerita with rank of Assistant Professor Emerita; Valparaiso University (B.A., 1962); Indiana University (M.A., 1965)
- Frederick Richard Meyer, Ph.D., Professor Emeritus of Biology; Valparaiso University (B.S., 1960); Indiana University (M.A., 1962; Ph.D., 1966)
- Sandra Sue Michelsen, Ph.D., Associate Professor Emerita of Education; University of Toledo (B.Ed., 1964); Michigan State University (M.A., 1970; Ph.D., 1985)
- John A. Miller, D.B.A., Professor Emeritus of Marketing in the College of Business Administration; Concordia Senior College (B.A., 1960); Indiana University (M.B.A., 1969; D.B.A., 1972)
- Thora Mary Moulton, Ph.D., Professor Emerita of Foreign Languages and Literatures; Mount Holyoke College (B.A., 1942); The University of Chicago (M.A., 1944); Eberhard-Karls-Universitaet, Tuebingen (Ph.D., 1958)
- Kathleen Ruth Mullen, Ph.D., Associate Professor Emerita of English; Notre Dame College (B.A., 1964); University of Texas (M.A., 1972; Ph.D., 1977)
- Marvin Glen Mundt, Ph.D., Professor Emeritus of Mathematics and Computer Science; Luther College (B.A., 1955); Iowa State University (M.S., 1958; Ph.D., 1961)
- Virgil Omar Naumann, Ph.D., Professor Emeritus of Physics; Montana State University (B.A., 1950); University of Wisconsin (M.S., 1952; Ph.D., 1956)
- Kenneth Elsworth Nichols, Ph.D., Professor Emeritus of Biology; Valparaiso University (B.A., 1949); The University of Chicago (M.S., 1953; Ph.D., 1962)
- Irving S. Olsen, M.S., Assistant Professor Emeritus; Northwestern University (B.S., 1954; M.S., 1955); Indiana University
- Margaret Perry, M.S.L.S., University Librarian Emerita with rank of Associate Professor Emerita; Western Michigan University (A.B., 1954); City College, New York; Catholic University of America (M.S.L.S., 1959)
- Howard Nevin Peters, Ph.D., Professor Emeritus of Foreign Languages and Literatures; Gettysburg College (B.A., 1960); Universidad Nacional Autónoma de México; University of Colorado (Ph.D., 1968)
- Judith Griessel Peters, Ph.D., Professor Emerita of Foreign Languages and Literatures; Valparaiso University (B.A., 1961); University of Colorado (Ph.D., 1968)
- Richard William Pick, M.F.A., Associate Professor Emeritus of Theatre and Television Arts; Valparaiso University (B.A., 1957); Northwestern University (M.A., 1962); University of Iowa (M.F.A., 1968)
- ⁶Walter Martin Reiner, M.S., M.A., Associate Professor Emeritus in Christ College; Springfield College (B.S., 1949); Indiana University (M.S., 1954); Roosevelt University (M.A., 1973)
- Malcolm Walter Reynolds, M.S., Associate Professor Emeritus of Mathematics and Computer Science; University of Michigan (B.S., 1951; M.S., 1952)
- Marcus Eric John Riedel, Ph.D., Professor Emeritus of Philosophy in Christ College; The University of Chicago (B.A., 1949; Ph.D., 1967)
- Warren Gunther Rubel, Ph.D., Walter G. Friedrich Professor Emeritus of American Literature; Concordia Seminary, St. Louis (B.A., 1950; M.Div., 1952); Washington University (M.A., 1961); University of Arkansas (Ph.D., 1964)
- Dolores Mary Ruosch, M.S., Dean of Women with rank of Associate Professor Emerita; Valparaiso University (B.A., 1951); University of Southern California (M.S., 1957)
- Verne Robert Sanford, Ph.D., Professor Emeritus of Mathematics and Computer Science; University of North Dakota (Ph.B., 1957; M.S., 1949); University of Michigan (M.P.H., 1962; Ph.D., 1970)
- William E. Schlender, Ph.D., Richard E. Meier Professor Emeritus of Management in the College of Business Administration; Valparaiso University (B.A., 1941); University of Denver (M.B.A., 1947); Ohio State University (Ph.D., 1955)
- Robert V. Schnabel, Ph.D., LL.D. (Hon.), President Emeritus; Bowdoin College (B.A., 1944); Fordham University (M.S., 1951; Ph.D., 1955); Concordia College, Bronxville (LL.D. [Hon.], 1988)
- James Edward Schueler, P.E., M.S., Professor Emeritus of Civil Engineering; Valparaiso University (B.S.C.E., 1959); Northwestern University (M.S., 1960)
- Theodore Carl Schwan, Ph.D., Professor Emeritus of Chemistry; Valparaiso University (B.A., 1941); University of Notre Dame (M.S., 1949; Ph.D., 1953)

⁵Deceased, January 28, 2007

⁶Deceased, December 5, 2006

- Edgar Paul Senne, M.A., Associate Professor Emeritus of Theology; Concordia Seminary, St. Louis (B.A., 1954; M.Div., 1958); Washington University (M.Ed., 1958); The University of Chicago (M.A., 1969)
- Dorothy Paulsen Smith, R.N., J.D., Ph.D., LL.D. (Hon.); Professor Emerita; Whitworth College (B.S., 1955; LL.D. [Hon.], 1997); Western Reserve University (M.S., 1960); Yale University (Ph.D., 1967); Valparaiso University (J.D., 1987)
- Lewis Oliver Smith, Jr., Ph.D., Professor Emeritus of Chemistry; Grove City College (B.S., 1944); University of Rochester (Ph.D., 1947)
- Ronald John Sommer, Ph.D., Professor Emeritus of English; Wabash College (A.B., 1960); Yale School of Drama; Brown University (M.A., 1963); Indiana University (Ph.D., 1975)
- Gerald Paul Speckhard, Ed.D., Professor Emeritus of Education; Valparaiso University (B.A., 1952); University of Wisconsin (M.S., 1959); University of Colorado (Ed.D., 1966)
- Bradford Hall Spring, Ph.D., Professor Emeritus of Civil Engineering; Cornell University (B.C.E., 1959; M.S., 1961); University of Wisconsin (Ph.D., 1973)
- William Leroy Steinbrecher, Ed.D., Professor Emeritus of Physical Education; Director of Athletics; Valparaiso University (B.A., 1957; B.S. in P.E., 1959); Indiana University (M.S. in P.E., 1963); Florida State University (Ed.D., 1969)
- Wayne Eugene Swihart, M.A., Associate Professor Emeritus of Education; Manchester College (B.A., 1940); Ashland College and Theological Seminary; Ohio State University (M.A., 1945); Indiana University
- James Chien-Hua Tan, Ph.D., Professor Emeritus of Biology; Chung Sing University, China (B.S., 1957); Montana State University (M.S., 1961); North Carolina State University (Ph.D., 1968)
- Frederick H. Telschow, D.M.A., Professor Emeritus of Music; Valparaiso University (B.A., 1951); University of Nebraska (M.M., 1960); Eastman School of Music, University of Rochester (D.M.A., 1969)
- Mirtha Toledo, M.A., Associate Professor Emerita of Foreign Languages and Literatures; Villanova University, Havana (LL.D., 1959); Indiana State University (B.S., 1964; M.A., 1965); Universidad Central de Madrid; Indiana University
- Mary T. Treanor, Ph.D., Associate Professor Emerita Mathematics and Computer Science; College of Mt. St. Vincent (B.A., 1964); University of Notre Dame (M.S., 1968; Ph.D., 1984)
- ⁷Forrest Leslie Vance, Ph.D., Professor Emeritus of Psychology; University of Minnesota (B.A., 1952; Ph.D., 1958)
- ⁸Gerhard A. Vater, M.S.E.E., Associate Professor Emeritus of Electrical and Computer Engineering; University of Wisconsin (B.S.E.E., 1937); Purdue University (M.S.E.E., 1960)
- Merlyn Clarence Vocke, P.E., Ph.D., Professor Emeritus of Electrical and Computer Engineering; Valparaiso University (B.S.E.E., 1955); University of Notre Dame (M.S.E.E., 1957); University of Iowa (Ph.D., 1971)
- Stuart G. Walesh, P.E., Ph.D., Professor Emeritus of Civil Engineering; Valparaiso University (B.S.C.E., 1963); The Johns Hopkins University (M.S.E., 1965); University of Wisconsin—Madison (Ph.D., 1969)
- LouJeanne Bray Walton, M.A., Associate Professor Emerita of Social Work; Valparaiso University (B.A., 1960); University of Chicago (M.A., 1969)
- Nola Jean Wegman, Ph.D., Professor Emerita of English; Northwestern University (B.S., 1953; M.A., 1954; Ph.D., 1967)
- Ted D. Westermann, Ph.D., Professor Emeritus of Sociology; Concordia Seminary, St. Louis (B.A., 1950; Diploma, 1953); Emory University (M.A., 1962; Ph.D., 1975)
- Richard William Wienhorst, Ph.D., Professor Emeritus of Music; Valparaiso University (B.A., 1942); American Conservatory of Music (M.M., 1948); Ecoles D'art Americaines du Fontainebleau (Diploma, 1951); Albert Ludwigs Universitaet, Freiburg; Eastman School of Music, University of Rochester (Ph.D., 1962)
- Raymond Boyd Wilson, D.P.A., Professor Emeritus of Administrative Sciences; George Washington University (A.B., 1956; M.A., 1965; D.P.A., 1972)
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- Geri Judith Yonover, J.D., Professor Emerita of Law; The University of Chicago (B.A., 1964); Illinois Institute of Technology (J.D., 1983)
- Leslie M. Zoss, P.E., Ph.D., Professor Emeritus of Mechanical Engineering; Purdue University (B.S.M.E., 1949; M.S.M.E., 1950; Ph.D., 1952)

⁷Deceased, April 25, 2007⁸Deceased, January 31, 2007

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Kathryn Baerwald (1972)	Alexandria, VA
Fredrick Barton (1970)	New Orleans, LA
Strachan Donnelley	New York, NY
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Mark Duesenberg (1984)	London, England
Susan Jenny Ehr (1982)	London, England
C. Stephen Hitchcock (1971)	Berkeley, CA
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Julie Meyer (1988)	London, England
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Peter Schmalz (1969)	Landenberg, PA
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Martin Baumgaertner (1974)	Chicago, IL
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Dierdre Burgman, Emerita (1979)	New York, NY
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Frank Sullivan, Emeritus	Indianapolis, IN
Michael Swygert (1967)	St. Petersburg, FL
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Patricia Walter, Emerita (1978)	Golden, CO
Jon Walton (1969)	Pittsburgh, PA
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Course Abbreviations

Below is an alphabetized list of course prefixes that are currently used on student records followed by the department or program referenced. Course descriptions may be found in the department or program text. See the Index for further reference.

ACC	Accounting	GLST	Global Studies
ACRS	Actuarial Science	GNST	Gender Studies
AMST	American Studies	GS	General Studies
ART	Art	HIST	History
AS	Aerospace Studies (ROTC)	ICP	International Commerce and Policy (graduate only)
ASTR	Astronomy	IDS	Information and Decision Sciences
BIO	Biology	IECA	International Economics and Cultural Affairs
BLAW	Business Law	ISP	International Service Program
CC	Christ College (Honors College)	LAW	Law (graduate only)
CE	Civil Engineering	LS	Liberal Studies
CHEM	Chemistry	MATH	Mathematics
CHST	Chinese Studies (graduate only)	MBA	Master of Business Administration (graduate only)
CLC	Classical Civilization	ME	Mechanical Engineering
COMM	Communication	MEM	Master of Engineering Management (graduate only)
CORE	The Valpo Core	MET	Meteorology
COUN	Counseling (graduate only)	MEUR	Modern European Studies
CPED	Cooperative Education (Arts and Sciences)	MGT	Management
CS	Computer Science	MKT	Marketing
CTED	Continuing Education	MS	Military Science (Army ROTC)
EAST	Chinese and Japanese Studies	MUS	Music
ECE	Electrical and Computer Engineering	NS	Natural Science
ECON	Economics	NUR	Nursing
ED	Education	PE	Physical Education
ENGL	English	PHIL	Philosophy
ENVS	Environmental Studies	PHYS	Physics
FIN	Finance	POLS	Political Science
FLC	Chinese	PSJ	Peace and Social Justice
FLF	French	PSY	Psychology
FLGK	Greek	SOC	Sociology
FLGR	German	SOCW	Social Work
FLH	Hebrew	SPED	Special Education
FLJ	Japanese	SPSY	School Psychology (graduate only)
FLL	Latin	THEO	Theology
FLS	Spanish	THTR	Theatre
GE	General Engineering		
GEO	Geography		

Courses for General Education Requirements

Cultural Diversity

- + AAA 900-949 International Study Semesters Abroad
 - + AAA 950, 960, 965 National Study Semesters Off Campus
 - CLC 290 Topic: Cultural Diversity/Classical World
 - ECON 136 Economics of Health, Education, and Welfare
 - ECON 233 The Economics of Race and Gender
 - ECON 336 Economics of Developing Nations
 - ED 370 Home, School, and Community Relationships
 - FLS 250 Topic: Spanish America in Literature & the Arts
 - GEO 102 Globalization and Development
 - GEO 200 American Ethnic Geography
 - GEO 274 North American Indian
 - GEO 301 Regional Geography: Latin America/Africa/Asia
 - GLST 150 Global Perspectives
 - GS 200 Study Circle on Race Relations
 - GS 201 Facilitator Training for Study Circles
 - HIST 225 Alternative Perspectives U.S. History
 - HIST 232 Survey of Latin American History
 - HIST 240 Introduction to East Asian Culture
 - HIST 250 African History and Society
 - HIST 304 European Imperialism and Colonial Experience
 - HIST 331 Ideas and Power in Latin American History
 - HIST 341 Revolution and Its Roots: The Making of Modern China
 - HIST 342 Tragedy and Triumph: The Making of Modern Japan
 - HIST 350 Colonialism and Independence: Understanding Modern Africa
 - HIST 355 Modern Middle Eastern History
 - PHIL 120 Democracy, Education, and Multiculturalism
 - PHIL 220 Non-Western Philosophy
 - POLS 110 Introduction to Politics
 - POLS 130 Comparative Politics
 - POLS 335 Politics of Developing States
 - SOCW 330 Vulnerable Populations: Color, Gender, and Orientation
 - SOC 150 Introduction to Anthropology
 - SOC 160 Contemporary Social Problems
 - SOC 230 Globalization
 - SOC 275 Systems of Social Stratification
 - SOC 347 Race and Ethnic Relations
 - THTR 334 Theatre of the Non-Western World
 - THEO 317 The New Testament in Its Cultural Environment
 - THEO 337 Black Theology and Black Church
 - THEO 353 Topic: Christian Response to Social Victims
 - THEO 357 The Church in the World
 - THEO 360 Topics in World Religions
 - THEO 362 Understanding Islamic Religion and Culture
 - THEO 363 Religions of China and Japan
- + Off Campus Program only.

General Education Courses

THEO 364	The Buddhist Tradition
THEO 365	Religion in Africa
THEO 366	Religion in Japanese Culture
THEO 368	Native American Religions
THEO 369	Perspectives on the Religious Quest
MGT 440	Cross-Cultural Management
NUR 212	Introduction to Community-Based Nursing and Health Promotion
NUR 318	Global Health Issues
NUR 418	Integrative Medicine: A Global Perspective

Humanities: Fine and Performing Arts

ART 101	Ancient to Medieval Art History
ART 102	Renaissance to Modern Art History
ART 121	Drawing
ART 132	Introduction to Design
ART 151	Ceramics
ART 162	Photography I
ART 221	Painting
ART 231	Graphic Design
ART 251	Sculpture
ART 311	Topics in the Theory and History of Art
ART 317	Seventeenth and Eighteenth Century European Art
ART 318	Nineteenth Century European Art
ART 319	Early Twentieth Century European Art
ART 320	American Painting
ART 321	American Art and Architecture
CLC 220	Introduction to Classical Archaeology
CLC 250	Classical Monuments in Context
CLC 251	Classical Mythology
+ EAST 395	Chinese Culture and Civilization (China)
ENGL 231	Film Aesthetics
ENGL 301	Introduction to Creative Writing
ENGL 423	Short Story Writing
ENGL 424	Poetry Writing
ENGL 431	Advanced Composition
FLGR 260	German Film Studies
FLGR 271	German Drama Practicum
FLJ 250	Topics in Japanese Literature and the Fine Arts
FLS 250	Topic: Spanish America in Literature and the Arts
MUS 050	Choirs (three credits of choir)
MUS 052	Bands (three credits of band)
MUS 054	Orchestra (three credits of orchestra)
MUS 101	Introduction to Music
MUS 318	Music of Baroque, Classical and Early Romantic Eras
MUS 319	Music of the Late Romantic and Modern Eras
MUS 473	Church Music
PHIL 210	Philosophy of Art
THTR 101	Introduction to Theatre

+ Off Campus Program only.

THTR 133	Practicum (three credits from three different sections)
THTR 230	Makeup and Costume
THTR 231	Scenery and Lighting
THTR 232	Applied and Interactive Theatre
THTR 235	Acting I
THTR 238	World Theatre and Drama I
THTR 239	World Theatre and Drama II
THTR 252	Writing for the Stage and Screen
THTR 290	Dance Topics
THTR 337	American Theatre

Humanities: History

Any 3-credit course in History (HIST)

Humanities: Literature

ENGL 200	Literary Studies
CLC 200	Classical Literary Studies
FLF 200	French and Francophone Literary Studies
FLGR 200	German Literary Studies
FLJ 200	Japanese Literary Studies
FLS 200	Hispanic Literary Studies

Humanities: Philosophy

Any 3-credit course in Philosophy (PHIL) except PHIL 150, Logic and Critical Thinking

CHEM 490	The Scientific Endeavor (when cross-listed with CC 300)
PHYS 490	The Scientific Endeavor (when cross-listed with CC 300)

Social Science

A 3-credit course from Economics (ECON)

A 3-credit course from Political Science (POLS)

A 3-credit course from Sociology (SOC)

GEO 101	World Human Geography
GEO 102	Globalization and Development
GEO 200	American Ethnic Geography
GEO 201	Economic Geography
GEO 274	North American Indian on Film
GEO 280	Geography of Cyberspace
GEO 301	Regional Geographies of the World
GEO 320	Urban Geography
GEO 321	Urban and Regional Planning
GEO 470	Political Geography
GEO 474	Historical Geography of the United States
GEO 475	Culture, Nature, Landscape
GNST 201	Introduction to Gender Studies
SOCW 210	Social Welfare: Policy and Services
SOCW 220	Human Behavior and Social Environment
SOCW 330	Vulnerable Populations: Color, Gender, and Orientation

Natural Science

ASTR	101/101L	Astronomy
BIO	125	Biotechnology
BIO	151	Human Biology
BIO	171	Unity of Life
CHEM	111	Introduction to Chemistry
CHEM	121	General Chemistry I
CHEM	131	General Chemistry – Honors
GEO	104	Introduction to Geomorphology
MET	103	Introduction to Meteorology
PHYS	111/111L	Essentials of Physics
PHYS	141/141L	Physics: Mechanics & Heat
PHYS	151/141L	Physics: Mechanics & Heat-Honors
PSY	110/111	General Psychology
NS	101	Introduction to Forensic Science
NS	102	Science of the Indiana Dunes
NS	103	Practical Stream Ecology

Quantitative Analysis

CS	115	Computers and Computation
MATH	120	Mathematical Ideas
MATH	124	Finite Mathematics
MATH	131	Analytic Geometry and Calculus I
MATH	140	General Statistics (AP credit only)
MATH	151	Calculus I – Honors
PHIL	150	Logic and Critical Thinking

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NOTES

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NOTES

VALPARAISO UNIVERSITY

Location Valparaiso, Indiana--Population 29,000
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 2006)
College of Arts and Sciences --1940 College of Business Administration--430
College of Engineering--325 College of Nursing--270
Christ College (Honors)--325 Graduate Division--385
Law School--525

ACCREDITATION

Accredited--The Higher Learning Commission; Member--North Central Association (All Programs), 30 North LaSalle Street, Suite 2400, Chicago, IL, 60602-2504; Tel: 312-263-0456; Fax: 312-263-7462; www.ncahigherlearningcommission.org

The American Chemical Society, 1155 Sixteenth St. NW, Washington, DC, 20036; Tel: 202-872-4600 or 1-800-333-9511; help@acs.org

National Council for Accreditation of Teacher Education, 2010 Massachusetts Ave. NW, Suite 500, Washington, DC, 20036-1023; Tel: 202-466-7496; Fax: 202-296-6620; ncate@ncate.org

Indiana State Department of Education--Indiana Professional Standards Board, 251 East Ohio Street, Suite 201, Indianapolis, IN, 46204-2133; Tel: 317-232-9010; Fax: 317-232-9023

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The Council on Social Work Education, 1600 Duke Street, Suite 300, Alexandria, VA, 22314-3421; Tel: 703-683-8080; Fax: 703-683-8099

AACSB International, 600 Emerson Road, Suite 300, St. Louis, MO, 63141-6762; Tel: 314-872-8507

The Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD, 21202; Tel: 410-347-7700; Fax: 410-625-2238

State of Indiana Health Professions Bureau--Indiana State Board of Nursing, 402 W. Washington St., Room 041, Indianapolis, IN, 46204; Tel: 317-232-2960; Fax: 317-233-4236

Commission on Collegiate Nursing Education, One Dupont Circle, NW, Suite 530, Washington, DC, 20036-1120; Tel: 202-887-6791; www.aacn.nche.edu

The Association of American Law Schools, 1201 Connecticut Ave. NW, Suite 800, Washington, DC, 20036-2605; Tel: 202-296-8851; Fax: 202-296-8869; aals@aals.org

The American Bar Association, 750 N. Lake Shore Drive, Chicago, IL, 60611; Tel: 312-988-5000; info@abanet.org

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