

## General Catalog 2012-2013

## $V$ <br> Valparaiso <br> University

## MISSION STATEMENT

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

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ANNOUNCEMENTS FOR 2012-2013 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 Law School and the Graduate School, as well as a Summer Session Bulletin, 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 2005-2006 academic year was 70.8\%. This graduation rate represents the percentage of students entering Valparaiso University as first-time (i.e., new) full-time degree-seeking freshmen during the 2005 Summer and Fall semesters who subsequently were awarded baccalaureate degrees by Valparaiso University within six calendar years (i.e., through August 2011).

# UNIVERSITY CALENDAR FOR 2012-2013 

## For the Colleges of Arts and Sciences, Business, Engineering and Nursing.

 For the Law School, consult the Law School Bulletin.
## SUMMER I 2012

May 22, Tuesday. Instruction begins. May 28, Monday, Memorial Day. No classes. June 29, Friday. Summer Session I ends. July 2, Monday, Noon. Deadline for all grades.

## SUMMER II 2012

July 2, Monday. Instruction begins.
July 4, Wednesday, Independence Day. No classes. August 10, Friday, Summer Session II ends. August 13, Monday, Noon. Deadline for all grades.

## FALL SEMESTER 2012

July 30-August 10. Web-based Enrollment Confirmation.
August 17, Friday. Fall FOCUS registration for new students who did not participate in summer FOCUS registration.
August 18, Saturday, 8:00 a.m. Fall Welcome orientation for freshmen begins.
August 20, Monday, 3:00-4:00 p.m. Drop/ Add Session.
August 21, Tuesday, 8:00 a.m. Instruction begins.
August 21-October 9. Dates for first half short courses.
August 28, Tuesday, 5:00 p.m. Deadline for adding first half short courses.
August 28, Tuesday, 5:00 p.m. Deadline for late registration for fall semester.
August 28, 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 4, Tuesday, 5:00 p.m. Deadline to file for S/U grade for first half short courses.
September 18, Tuesday, 5:00 p.m. Deadline to file for S/U grade for regular courses.
September 21, 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, 2013.
October 5-7, Friday-Sunday. Homecoming Weekend.
October 8, Monday. Last date for partial refund of University charges.
October 10, Wednesday, 5:00 p.m. Deadline for arranging course intensification.
October 10-December 7. Dates for second half short courses.
October 17, Wednesday, 5:00 p.m. Deadline for adding second half short courses.
October 18-19, Thursday-Friday. Fall Break. No classes.
October 22-November 9. Advance registration for Spring Semester, 2013.
October 24, Wednesday, 5:00 p.m. Deadline for withdrawing from regular courses with grade of W.
October 27-28, Saturday-Sunday. Family Weekend.
October 29, Monday, 5:00 p.m. Deadline to file for S/U grade for second half short courses.
November 12, Monday, 5:00 p.m. Deadline for withdrawing from second half short courses with grade of W.
November 16, Friday, 6:30 p.m. Thanksgiving recess begins.
November 26, Monday, 8:00 a.m. Thanksgiving recess ends.
November 30, Friday. Last day for tests in courses of 3 credits or more. Last day to petition for change in date of final examinations.
December 7, Friday, 5:00 p.m. Deadline to officially withdraw from the University for Fall Semester. Last day to file petitions to change registration.
December 7, Friday, 10:00 p.m. Instruction ends.
December 8, Saturday, Reading day.
December 9, Sunday. December Commencement Ceremony.
December 10, Monday, 8:00 a.m. Final examinations begin.
December 14, Friday, 5:30 p.m. Final examinations end. Semester ends.
December 17, Monday, Noon. Deadline for reporting all grades.

## SPRING SEMESTER 2013

December 3-14. Web-based Enrollment Confirmation.
January 7, Monday. Orientation and registration for new students.
January 8, Tuesday, 3:00-4:00 p.m. Drop/Add Session.
January 9, Wednesday, 8:00 a.m. Instruction begins.
January 9-March 18. 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.
March 1, Friday, 5:00 p.m. Deadline for arranging course intensification.
March 1, Friday, 6:30 p.m. Spring recess begins.
March 18, Monday, 8:00 a.m. Spring recess ends.
March 19-May 7. Dates for second half short courses.
March 21, Thursday, 5:00 p.m. Deadline for adding second half short courses.
March 26, Tuesday, 5:00 p.m. Deadline for withdrawing from regular courses with grade of W.
March 29, Good Friday. No classes.
April 1, Monday. Last day to file application of candidacy for the associate's and bachelor's degrees to be conferred in December, 2013.
April 1-April 19. Advance registration for Fall Semester, 2013.
April 2, Tuesday, 5:00 p.m. Deadline to file for S/U grade for second half short courses.
April 17, Wednesday, 5:00 p.m. Deadline for withdrawing from second half short courses with grade of W.
April 30, Tuesday. Last day for tests in courses of 3 credits or more. Last day to petition for change in
date of final examinations.
May 7, Tuesday, 5:00 p.m. Deadline to officially withdraw from the University for Spring Semester.
Last day to file petitions to change registration.
May 7, Tuesday, 10:00 p.m. Instruction ends.
May 8, Wednesday. Reading day.
May 9, Thursday, 8:00 a.m. Final examinations begin.
May 14, Tuesday, 5:30 p.m. Final examinations end. Semester ends.
May 15, Wednesday, Noon. Deadline for grades for all candidates for all degrees.
May 17, Friday, 5:00 p.m. Deadline for reporting all other grades.
May 19, Sunday. $139^{\text {th }}$ Annual Commencement


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

## VALPARAISO IN BRIEF



## 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, 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 New American Colleges and Universities, 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 320 acres contains more than sixty 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 150 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 about $42 \%$ of its undergraduate students from Indiana; another $48 \%$ 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. Over $55 \%$ of the students come from the upper fifth of their high school graduating classes. Approximately twenty-five National Merit Scholars are enrolled at the University in any given year.

A rich diversity characterizes the University faculty ( 263 full-time and 112 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 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.

## University-Wide Student Learning Objectives

Through the following student learning objectives, Valparaiso University affirms its mission-based commitment to educate responsible global citizens who are ready to lead and serve church and society.

The Committee on Assessment has built these university-wide student learning objectives from the Mission Statement, the Strategic Plan, the work of the General Education Committee, and the assessment plans of all the colleges, departments, and programs.

These objectives are designed to help colleges and departments clearly link their student learning objectives to those of the University. All academic units will indicate how the learning outcomes of their curriculum and of individual courses within that curriculum link to some, or all, of the university-wide student learning objectives. The objectives are designed to include the cognitive, skill, and value domains of learning. 1. Students will demonstrate skill in various methods of acquiring knowledge in the humanities, social and natural sciences, quantitative reasoning, and the creative arts.
2. Students will master and demonstrate content knowledge by using methods such as inference, generalization, and application.
3. Students will become active learners by finding, analyzing, synthesizing, and evaluating information.
4. Students will demonstrate the ability to build logical and persuasive arguments, cases, reports, and/or responses.
5. Students will communicate clearly and effectively in both oral and written forms.
6. Students will achieve a basic level of technological adeptness, appropriate to their field(s) of study.
7. Students will interact and collaborate effectively in groups and teams.
8. Students will explore the relationship between faith and learning.
9. Students will practice the virtues of empathy, honesty, and justice in their academic endeavors.
10. Students will appreciate that diversity in areas such as culture, gender, race, sexual orientation, and religion is pertinent to functioning successfully in a global community.

## Degrees

## UNDERGRADUATE DEGREES

Associate of Arts
Associate in Science
Bachelor of Arts
Bachelor of Liberal and Professional Studies
Bachelor of Music
Bachelor of Music Education
Bachelor of Science
Bachelor of Science in Education
Bachelor of Science in Fine Arts
(no longer offered as of Summer 2011)
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
Bachelor of Science in Health Care Leadership

## GRADUATE DEGREES

Master of Arts
Master of Arts in Liberal Studies
Master of Business Administration
Master of Education
Master of Engineering Management
Master of Health Administration
Master of Ministry Administration
Master of Science
Master of Science in Nursing
Education Specialist
Doctor of Nursing Practice

## LAW DEGREES

Juris Doctor
Master of Laws
Doctor of Juridical Science

## 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 General Education Requirements at Valparaiso University

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 Kinesiology: 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
Astronomy
Biology
Chemistry
Chinese and Japanese Studies

Chinese Minor
Classics
Communication (General, Communication
Law, Public Relations)
Computer Science
Creative Writing
Criminology
Digital Media
Economics
Elementary Education (Grades K-6)
English
Environmental Science
French
Geography
Geology
German
Hebrew Minor
History
International Economics and Cultural Affairs
International Relations
International Service
Japanese Minor
Mathematics
Meteorology
Modern European Studies
Music
Music Education
Philosophy
Physical Education
Physical Education: Sports Management
Physical Education: Exercise Science
Physical Education: Teacher Education
Physics
Political Science
Professional Writing
Psychology
Secondary Education (Grades 5-12)
Social Work
Sociology
Spanish
Theatre
Theology
Theology and Ministry
Writing Minor
Christ College:
Scholar and Associate Honors Program
The Humanities
The College of Business:
Accounting (two degree options)
Finance
International Business
International Business and Global Studies Minor
Management
Marketing
The College of Engineering:
Civil Engineering
Computer Engineering
Digital Systems Design Minor
Electrical Engineering

Engineering Minor
Mechanical Engineering
Humanitarian Engineering Minor
Interdisciplinary Programs:
Applied Statistics Minor
Business Administration Minor
Environmental Studies Minor
Ethnic Studies Minor
Film Studies Minor
Fundamentals of Business Minor
Gender Studies Minor
Human Aging Minor
Peace and Social Justice Studies Minor
Philanthropic Leadership and Service Minor
Urban Studies Minor
The College of Nursing:
Health Care Leadership
Nursing
B.S.N. completion program for R.N. students

Accelerated B.S.N. degree option
Programs of the Law School 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 Business, Entrepreneurship, and Society Program. The Business, Entrepreneurship, and Society Program in Chicago, offered in cooperation with the Associated Colleges of the Midwest, introduces the central themes of creativity, innovation, and problem solving as the fundamental tools of successful businesses and organizations of all types. The program challenges students to consider and apply these themes within the broader context of their experience living and working in Chicago as a major urban center. The program consists of 16 credit hours of coursework, which includes an internship with a local business or not-for-profit organization and a faculty-guided independent study project. Through their experiences living, working, and learning in Chicago, students will explore case studies of Chicago entrepreneurs, develop contacts with Chicago-based business leaders and entrepreneurs, learn to recognize entrepreneurial opportunities in everyday life, and deepen their knowledge of Chicago from a variety of perspectives.

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 Business, Entrepreneurship, and Society Program 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 Business, Entrepreneurship, and Society Program courses are accepted for full credit toward graduation from Valparaiso University.

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 238.

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 (page 191), Engineering (page 207), and Nursing (page 228).

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 coop 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 fulltime 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, 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 creditbased 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 servicelearning component.
2. A reasonable variety of service agency placements should be provided for each course.
3. Any given course may contain a servicelearning 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 56-57.

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 185-189.

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 246.

## 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 Churchrelated 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.

Kenneth A. Kress Physics Lecture Fund is used by the Department of Physics and Astronomy to host a lecture each year by an expert in the field.
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. and 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.

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.

The Kreft Endowed Chair for the Advancement of Nursing Science was established for the purpose of attracting and retaining high quality faculty for the College of Nursing and to further develop the academic, spiritual and moral qualities of the current faculty.

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 Reformation 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.

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 Frederick 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.

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 Law School.

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 advance 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. Huegli 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.

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 Civil, Electrical \& Computer, and Mechanical Research Funds. 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 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 many programs abroad, two of which (Cambridge and Reutlingen) are exclusively Valparaiso University programs; the other programs (Cergy, La Rochelle, Rottenburg am Neckar, Tübingen, Puebla, two programs in Paris, Hangzhou, Japan, Anglia Ruskin University, College Year in Athens, Namibia, Chile, two programs in India, Thailand, and two programs in Spain) are offered in conjunction with host-institution programs. Students considering study abroad should consult the Director of Study Abroad 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 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 fifth week of each semester, and selections take place in the sixth week. Applications may be submitted through the fifth 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 sophomore or junior year. The Tübingen, Granada, Rottenburg am Neckar, Anglia, and Cergy programs, 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 266). For the other programs, students should check with the Director of Study Abroad 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 Study Abroad Programs. When students decide on a program, it is necessary to obtain the prior approval of an academic advisor, the Director of Study Abroad 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. Also meet with a member of the Financial Aid Office. Although Valparaiso University grants/scholarships are not available for non-Valparaiso University programs, Federal, Indiana, and private scholarships and loans are. You should continue to file your FAFSA by the state deadline each year. The Financial Aid Office will discuss your plans with you and answer questions regarding aid for your time off-campus as well as implications for outstanding student loans.

## 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 may 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 2.75 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.
THEO 490 History of Early Christian Centuries . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
NUR 390 Challenges in Global Health 3 Cr.
GEO 210 Challenges in Global Health 3 Cr.
Courses may apply toward fulfillment of the following General Education RequirementsHumanities: Fine Art (ART 311, CLC 251, or GS 390), Humanities: History, 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 Study Abroad 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 Study Abroad Programs.

## Chiang Mai, Thailand

Students can take advantage of studying and living in northern Thailand while participating in the exchange program with Payap University in Chiang Mai, a cosmopolitan city of 400,000 people. Students enroll in the Southeast Asian Studies Program which offers students a chance to immerse themselves in the language, cultural and daily life of Thailand. Students live in dormitory rooms at the university and take all coursework in English. Available for the fall and/or spring semesters.

Program Requirements. A grade point average of 3.00 and sophomore standing are required. No prior knowledge of the Thai language is required.

Program Curriculum. Students enroll in Thai language and culture courses along with coursework in various fields including Economics, Fine Arts, Theology, History and Sociology. Students will participate in field trips to enhance the experiential-learning emphasis of the program. Upper level Thai language courses can be arranged upon request. All courses are considered Valparaiso University credits and may count towards a major or minor, General Education requirements, or as electives.

## Chile

Students whose program interests include both Spanish and Latin American studies may apply to participate in the exchange program with the Universidad Viña del Mar, located on the Pacific coast nest to Valparaíso, Chile. Participants live with a host-family and attend classes in Viña del Mar.

Program Requirements. Intermediate Spanish skills (Spanish 204 or its equivalent, minimally), sophomore standing, a grade point average of 3.0 or better, and approval of the Spanish section are required.

Program Curriculum. Students enroll in Spanish courses offered by the Universidad Viña del Mar, as well as other courses related to the culture and history of Chile and Latin America.

The program is available in the fall semester (August to December), spring semester (March to June) or for the full year.

## 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.

## Zaragoza, Spain

One of Valparaiso University's newest exchange programs with the Universidad de Zaragoza offers students the opportunity to enroll in Spanish courses at the Center of Spanish as a Foreign Language at the Universidad de Zaragoza, as well as take one or two additional courses from the university at large. Zaragoza is a very rich city in art history and offers students the opportunity to travel easily around Spain and Europe. Students can live in dorms around campus but are encouraged to choose the home-stay option.

Program Requirements. Intermediate Spanish skills (Spanish 204 or its equivalent, minimally), sophomore standing, a grade point average of 3.0 or better, and approval of the Spanish section are required.

Program Curriculum. Students enroll in Spanish courses offered by the Universidad de Zaragoza faculty members, as well as other courses focusing on history, literature, history of art, and society, among others. In
addition, students have the option of enrolling directly into the Universidad de Zaragoza's business and engineering schools, taking such coursework in Spanish.

The program is available in the fall semester, spring semester or for the full year.

## 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 2.75 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 309 Intensive Advanced Chinese I. 5 Cr.
EAST 310 Intensive Advanced Chinese II 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.

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.

## India

Valparaiso University has exchange agreements with the Ansal Institute of Technology in northern India, just outside Delhi, and with Karunya University in southern India, just outside Coimbatore. While participating in these programs, students can take advantage of many cultural and social activities at the university campus or nearby communities. Students live in dormitory rooms at the university and take all coursework in English. The programs are available fall and/or spring semesters

Program Requirements. A grade point average of 3.00 and sophomore standing are required.

Program Curriculum. Students enroll in business and engineering courses as well as General Education requirements. All courses are considered Valparaiso University credits and may count toward a major or minor, General Education requirements, or as electives. It is also possible to arrange a service-learning opportunity, internship or independent study while participating in one of these exchange programs.

## 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-four 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.

## La Rochelle, FranceBusiness

Valparaiso University has established an exchange partnership with La Rochelle Business School (Groupe Sup de Co) in La Rochelle on France's Atlantic coast. It offers a special opportunity for students to study Business Administration and develop their French language skills in this private business school of 1600 students. La Rochelle Business School students also come to Valparaiso for a semester of study. Valparaiso University students at La Rochelle Business School may take some courses in English. Valparaiso University students are housed in apartments near the university.

Program Requirements. French 203 or the equivalent is required. College of Business students must have completed the Freshman/ Sophomore core classes. Approval of the Dean of the College of Business and the French section as well as a 3.0 overall grade point average are required.

Program Curriculum. Students take a course in French as a Foreign Language as well as appropriate courses in various areas of business administration, which may include marketing, intercultural management, or international logistics. Some courses may be taken in English. Normally students will register for a total of about 14 credits. All credits are considered Valparaiso University credits and count toward College of Business electives or requirements, a French major or minor, general education requirements, or as elective credits.

The program is available only in the spring semester.

## La Rochelle, FranceEngineering

As part of the Valparaiso International Engineering Program-French, Valparaiso University has an exchange relationship with EIGSI Engineering School in La Rochelle, France, a historic city on France's Atlantic coast. Valparaiso University students enrolled in the VIEP program spend the fall semester of their fourth year taking engineering classes in French at this private engineering school. They then spend the spring semester in a co-op work experience in France or in EIGSI engineering classes. EIGSI is located steps from the ocean and next door to the La Rochelle Business School, with which Valparaiso also has an exchange agreement. EIGSI students also come to Valparaiso University for one semester each year. Students at EIGSI are housed in apartments very near the EIGSI campus.

Program Requirements. Students must be enrolled and in good standing in the VIEPFrench program. Approval of the VIEP-French directors is required. See the VIEP description on page 207.

Program Curriculum. Courses to be taken at La Rochelle are chosen in consultation with the student's College of Engineering advisor and will include engineering courses as well as a course in French as a foreign language. All courses are considered to be Valparaiso University credits and will count toward the student's engineering major and French major or minor.

## 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. 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. Based on a four-week intensive French language and orientation program as well as a placement exam, students enroll in French language, literature,
business, and civilization courses offered at the Intermediate, Advanced and Superior Levels. Central College seminars and Sorbonne/Institut Catholique courses vary from year to year, but are generally available in the following fields: Art Appreciation, Business, French Literature, History, Geography, Music, Philosophy and Political Science. It is also possible to arrange a service-learning opportunity or an internship. 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.

## Paris Internship Program

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

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

Program Curriculum. Students begin the program with 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 students may study fall semester, spring semester, or the entire year at the Universidad de las Américas Puebla (UDLAP) in Puebla, Mexico. Students live with Mexican suitemates in on-campus residence halls.

A Spanish professor at the UDLA will meet with Valparaiso University students on a regular basis to answer questions, to help interpret the Mexican culture, to offer suggestions on travel, to serve as an advisor on academic and immigration matters, and to be available in case of an emergency.

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.

## 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 2.75 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.
FLGR 200 German Literary Studies . . . . . 3 Cr.
HIST 390 Topic: Luther and Bach . . . . . . 3 Cr. THEO 329 Topic: 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 329 maybe used to fulfill upper-level Theology requirement; HIST 329 maybe used to fulfill the Humanities History requirement; FLGR 200 fulfills the Humanities: Literature requirement.

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

## Rottenburg am Neckar, Germany

Students whose program interests include both German and music may apply to participate in the one-on-one exchange with the Hochschule für Kirchenmusik in Rottenburg am Neckar.

Program Requirements. This program requires advanced German skills (German 220 or its equivalent, minimally), advanced organ skills, junior standing, a grade point average of 3.0 or better, and approval of the German section and the Department of Music.

Program Curriculum. Students enroll in courses offered by the Hochschule, all of which are related directly to music, and for studio lessons in organ. The program is available in the spring semester only.

## Tübingen, Germany

Through a special one-on-one student exchange agreement with the Eberhard-KarlsUniversität 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 and Services

The 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, the Academic Success Center, and the campus Writing Center. At 105,000 square feet, it provides a comfortable atmosphere for research, inquiry, discussion, and study. With more than 180 public computers, three fireplace lounges, a gourmet coffee shop, dozens of group study spaces, and a beautiful $4^{\text {th }}$ floor outdoor terrace, students will find the Christopher Center to be a modern, state-of-the-art campus facility to meet their research needs. It can hold a total of 600,000 library volumes, both on open bookshelves throughout the Center and in its robotic highdensity storage and retrieval system.

Students 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 through
customized assistance. The library also provides course-specific, assignment-based information literacy instruction in collaboration with each academic college, as well as individual student research appointments.

Library services play an important role in scholarly communication by organizing print and electronic information for easy retrieval. An online public catalog of its holdings is searchable in a variety of ways. It is accessible throughout the world via the Library Services Home Page <http:/ /library.valpo.edu>. The holdings in the catalog include materials in a variety of print and electronic formats. The Christopher Center holds the Moellering Collection, which is comprised of more than 350,000 volumes, adding approximately 10,000 new volumes each year.

The Library Services Home Page offers direct access to more than 68,000 online journals and approximately 100 electronic databases, with links to the full text of articles, to provide ready access to scholarly information across the academic disciplines. Students may send the text of articles retrieved to their email boxes for later printing. They may request interlibrary loan service for articles and books 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 five 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 more materials.

The Law Library at Wesemann Hall holds a collection of more than 185,000 bound volumes and 980,000 microforms, with 2,332 current periodical subscriptions. LEXIS and WESTLAW subscriptions add to the rich information resources available for use by Valparaiso University law 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

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.

Information Technology (IT) coordinates and manages servers; data networks (wired and wireless) including Internet access; communication resources including electronic mail, voice mail, telephone services, satellite television; general-access computing facilities; and general-purpose software related to the academic and administrative functions of the University.

Computer Network Access. Residence hall rooms, faculty and staff offices, all general purpose computer clusters, classrooms and laboratories, and many special-purpose computer labs are connected to the Valparaiso University network via wired or wireless access. This network provides access to the Internet, electronic mail, 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 are accessible via other Internet domains, including commercial Internet Service Providers.

## Computer Access for Students.

All residence halls have a computer site open around the clock for residents with multiple workstations and network printer access. All residence hall rooms have a wire and wireless access in most locations, allowing those who bring their own computers to connect to the campus network. The computer lab in the Harre Union is available 24 hours per day. Students must use their OneCard (ID Card) to gain entry after normal hours. Many computer facilities in the Christopher Center for Library and

Information Resources are available for general use. Other general purpose and departmental computer labs are available in various locations across campus.

The Christopher Center has a variety of electronic sources of information, including online public access catalog, databases, and references to useful web sites. Patrons may view their circulation records online and renew books electronically. Computer clusters provide network access for the full range of academic activities.

On the first floor of the Christopher Center, students, faculty and staff can create digital video, edit photos, practice advanced web design techniques or audio manipulation and editing in the Advanced Media Lab.

Adaptive Technology workstations are available in several locations including the Christopher Center, Gellersen Hall, Urschel Hall, and the Harre 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.

General applications supported include electronic mail, web browsers, anti-virus, word processing, spreadsheet, database, desktop publishing, an online course management system, statistical analysis software and presentation graphics. Many departments have discipline-specific applications on the network or in departmental computing labs.

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 technology training sessions on specific applications, web resources, email, and basic computer skills throughout the year.

The Valparaiso University Network. IT manages servers which provide email, web pages, administrative data, shared file space, some library functions, general productivity software, programs for over 135 disciplinespecific applications and many other functions.

Planning. An ongoing strategic planning process apprises the University of emerging technological developments and ensures consideration of budget requests for technology. The information technology strategic planning process integrates with, and supports, the goals and objectives of the Valparaiso University strategic plan.

OneCard ID. Each student is issued a University OneCard photo ID. This card will be an important tool as well as serve as the identification card. The OneCard is used for
checking out books from the library, charging books purchased from the Book Center to the student account, making purchases from campus vending machines, copiers and laundry facilities as well as at Dining Services locations on campus. The OneCard may be used for purchases at local merchants. The OneCard is also used to gain entry to campus sporting and recreational events as well as residence hall, academic building and the Union doors.


## HONORS AND AWARDS



Photo courtesy of Di Geng, '11

## Graduation Honors

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 3.80 in their work at this institution are graduated Summa Cum Laude.

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 3.60 in their work at this institution are graduated Magna Cum Laude.

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.

Christ College Honors. 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 pages 56-57.

## Semester Honors

Undergraduate students who achieve a standing of 3.50 in any semester are awarded semester 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.
Semester Honors are also referred to as the dean's list.

## Honor Societies

## NATIONAL FRESHMAN HONOR SOCIETY

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

## NATIONAL SENIOR HONOR SOCIETY

Phi Beta Kappa. This national honor society recognizes academic excellence and outstanding scholarly achievement in the liberal arts and sciences.

## NATIONAL COLLEGE HONOR SOCIETIES

Alpha Epsilon Delta. This national honor society recognizes students who have achieved academic distinction while pursuing a premedical or predental 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 are eligible for membership.

Lambda Pi Eta. This national honor society of the National Communication Association (NCA) recognizes communication majors who have achieved a high level of academic excellence.

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 to students enrolled in the College of Arts and Sciences who have completed 84 credits earned at Valparaiso University and whose cumulative grade point average is 3.75 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
Kinesiology-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
Theology-Theta Alpha Kappa

## 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 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 and International Relations 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.

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.

The Alfred H. Meyer Award annually recognizes a geography major based on his/ her performance in a variety of categories. This award was established by alumni of Valparaiso University's geography program and members of the faculty to honor Dr. Meyer who served the Department of Geography and Meteorology (known then as the Department of Geography and Geology) as its founder and first Chair. The award includes a cash prize.

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 Nancy Wehmeier Nagel and Robert B. Nagel Prize is awarded annually to the graduating female mathematics major with the highest grade point average.

The Eugene M. Rasmusson Award annually recognizes a meteorology major based on his/ her performance in a variety of categories. The award was established to honor Dr. Rasmusson who has dedicated his distinguished career to the field of meteorology and is widely recognized for his research and publications and for his superior example of scholarship and service. The award includes a cash prize.

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 nonfiction prose essay.

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

The Charles W. Wolf Award is presented annually to the most outstanding premedical arts junior who is majoring in either chemistry or biochemistry.

## 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 nine university residence halls and apartment buildings, or in one of the seven 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 one, 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. 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, Uptown East 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.

## 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. As part of the enrollment confirmation process, all entering students must agree 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: Men's Choir, Women's Choir, 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. Theatre Outreach Performances (TOP) performs plays on social issues for local and regional schools, colleges, churches, 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 studio courses in painting, drawing, digital art, video 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 more than 3,000 works of art featuring at its core the Sloan Collection of American Paintings. Modern and contemporary works are featured in the museum's newly-created Byron Lee and Josephine Luecke Ferguson Galleries. 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, 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 and minors 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 biannual 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 and Fitness Center are major indoor facilities. Outdoor facilities include tennis courts, all-purpose intramural fields, and fields for varsity baseball, football, soccer, and softball. Although the University provides an experienced staff and takes every precaution to avoid injury to all participants in the intercollegiate and recreational sports 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, fitness classes, and clinics offered by the Recreational Sports staff.

Intercollegiate Competition. Women's sports offered are: basketball, bowling, cross country, golf, soccer, softball, swimming, tennis, indoor and outdoor track, and volleyball. Membership is maintained in the National Collegiate Athletic Association Division I. The women's teams participate in the Horizon League.

Men's sports offered are: football, golf, basketball, baseball, soccer, cross country, swimming, tennis, and indoor and outdoor track. Membership is maintained in the National Collegiate Athletic Association Division I (with the exception of football, which is Division I-AA). 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, University Programming Council, and 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.

University Programming Council. The University Programming Council 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, and Sigma Tau Gamma.

National Greek-letter social and philanthropic sororities include Chi Omega, Delta Delta Delta, Delta Xi Phi, 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 dedicated to helping others through service and having fun as a chapter. The Valparaiso chapter, one of more than 700 in the nation, was chartered in 1948, and has become the premier service based leadership organization on campus. 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 website 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 diverse Asian American cultures and to promote collaboration between American students and International students from Asian countries. Events include: Diwali Celebration, Luau, Golden Wok Competition, Spring 'Feast From the East' Dinner and Show, Asian film fests, cultural field trips, MLK Day Focus Session, and socials. The association is open to all Valparaiso University students and to those interested in Asian cultures.

Black Student Organization (BSO). The Black Student Organization promotes awareness of African-American history and culture. BSO provides avenues for networking and socializing. Events include MLK Day events, cultural field trips, StepShow, gospel festivals, BET Comedy Night, annual Black History Month Dinner and month-long activities, discussion forums, and attending regional and national multicultural leadership conferences. BSO membership is open to all Valparaiso University students.

Latinos in Valparaiso for Excellence (LIVE). LIVE promotes academic excellence among Hispanic/Latino students at Valparaiso University. LIVE cultivates the interests of students through discussion forums, unity socials, Heritage Hispanic Month activities, Cinco de Mayo Dinner, U.S. Hispanic Leadership Conference, Hispanic Film Night, and cultural field trips. LIVE is open to all students on campus interested in Hispanic/ Latino cultures.

## 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 (World Banquet), which features cuisinefrom 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 also welcomes American members and serves to bridge the gap between cultures. Other international student organizations are the Valparaiso University Chinese Student and Scholar Association (VUCSSA), the Saudi Student Association (SSA), and the Muslim Student Association (MSA). Students in these organizations are automatically also members of VISA. These organizations utilize the Gandhi-King Center for Diversity and Global Engagement for their activities. The Gandhi-King Center is also the location of the Office of International Programs and the Office of Multicultural Programs, which share a reception area, a kitchen, and a large lounge. These locations for VISA, the Office of International Programs, and the Office of Multicultural Programs are clear indicators of Valparaiso University's strong commitment to serve international and multicultural students and to integrate them with all members of the University community.

## Volunteer Programs

Advocates for Civic Engagement (ACE). ACE is a program run out of the Office of Volunteer Programs in which students are the liaison between community volunteer agencies and the Valparaiso University community. There are five ACE coordinator positions: Youth and Education Programs, Social Justice Programs, Environmental Programs, Elderly Programs, and Valparaiso University Volunteer Opportunities (for on-campus events). Each ACE coordinator holds one volunteer opportunity for his or her program area and invites all students to participate in these activities. Anyone can apply to be an ACE coordinator or sign up for volunteer opportunities. The ACE office is located in the Student Organization Suite in the Harre Union.

## The Harre Union

The Harre Union serves as the community center for campus life, and acts as an innovative and inviting environment for students, faculty, staff, the extended University family and guests. It is the goal of the Union to provide a comprehensive program of social, recreational, spiritual, and educational activities and services that complement the mission of the University. The Harre Union completes the heart of the campus and offers everyone the opportunity to enjoy its many amenities, programs, and services.

The Union is the home to many student organizations, which include Student Senate, University Programming Council (UPC) (one of the largest student programming organizations), and Volunteer Programs. The Student Organization Suite (open $24 / 7$ ) is home to over 80 recognized student organizations that offer a wide variety of cocurricular opportunities that help students to become actively involved on campus. Student organizations offer opportunities to students to enhance their leadership skills, learn more about their major, develop lifelong friends and have fun. The Union staff offers advice and assistance regarding program development to all student organizations on campus.

The Union Administration Office oversees the daily operation of the Harre Union. Event Services processes reservations for meetings, conferences, events, summer camps and special events in the Union as well as in a variety of academic buildings. The office compiles, prints, and distributes Cultural Arts Calendars to help keep the campus informed. This calendar can also be found at the Union website, <www. valpo.edu/union>. The Union staff also plans and presents a number of activities throughout the year, which include the Annual Union Jazz Fest, World Cinema Series, Student Activities Fair, Games and Recreation Tournaments and much more.

The Harre Union Games and Recreational Area provides students with a variety of recreational opportunities. This area provides students a place to unwind and discover a variety of indoor recreational opportunities including billiards, table tennis, and foosball. The staff organizes a number of tournaments and leagues for students to join throughout the year. The Outdoor Recreation Center has camping gear, bicycles, sleds, raquet sports gear, and lawn games at low rental rates.

Dining options within the Union include The Marion Breen Founders' Table and the Campus Café. The Founders' Table is the main dining room for the campus and includes a large variety of foods, including Naples style pizza; The Chef's Corner, which abounds with a variety of comfort foods daily; large salad bar; char-broiler for steaks, chops and seafood; and daily stir-fry specials. All items are freshly cooked at each station. The Campus Café is a relaxing dining area, which includes a variety of hot foods, Grab-N-Go items, Perks coffee shop, featuring Starbucks coffee, and bakery, Freshen's smoothie operation and a Convenience Store for grocery items. Customers may use cash and students may also utilize their meal plan account in both dining areas. The Café also includes a performance stage and
television, and is open late night for students' dining needs.

Adworks offers printing and copier services. Services include the printing of banners, posters, campus mailings, and table tents. Color flyers and posters are available in a variety of sizes. Laminating and collating are also available.

The Union Welcome Desk is available to help in a variety of ways. Whether students need to purchase tickets, find a phone number, send a fax or obtain a campus map, the Welcome Desk is eager to help. It also has magazines and daily newspapers available for students' reading enjoyment.

Other Union services include a cash machine, email kiosks, televisions, audio/visual services, coin/card-operated copy machines and information tables. In addition, the Union has a $24 / 7$ computer lab/lounge, wireless internet, lockers and vending machines. The University Bookstore is also located in the Harre Union.

## Campus Ministry

Standing together at the center of campus, the Chapel of the Resurrection and the Christopher Center for Library and Information Resources express the University's belief in the creative relationship between faith and learning. The connection between Lutheran heritage and academic studies extends far beyond the classroom at Valparaiso University. Our students, faculty, staff, and alumni reach out from this center of liberal and professional learning with a sense of Christian vocation to serve not only the campus and Valparaiso community, but also in places around the world. This includes, but is not limited to, those who serve the church as ministers, educators, artists, musicians, and scholars. Nurses, engineers, and business professionals are also a major part of the connection between life and faith.

The ministry of the Chapel of the Resurrection, centered in Christ and guided by the Lutheran tradition, transforms its community for service, leadership, and reconciliation in the church and in the world.

Worship at the Chapel of the Resurrection draws upon the gifts of Christians from across the centuries and around the world. Students, pastors, and other members of the University community bring their best as an offering to shape each worship service through music and art, proclamation, and prayer.

The Chapel offers a service of Holy Communion every Sunday morning, yearround. When classes are in session, students can also worship at a Sunday evening service called Candlelight and at Celebrate!, a mid-week
contemporary service. The single most frequent worship opportunity is Morning Prayer, a 20-minute service that begins at 11:15 a.m. each class day. Worship styles change from day to day, season to season, with music ranging from ancient to contemporary. Morning Prayer is a time for students, faculty, and staff to gather as a community of faith, share space in the pew, hear God's word, pray, and give praise. Other special services are also offered throughout the year, including a Gospel praise service featuring the VU Gospel Choir, as well as a variety of Vespers services, Ash Wednesday, Holy Week services and more. All are welcome.

Students provide leadership in planning the majority of the Morning Prayer, Candlelight, and Celebrate! services at the Chapel. There are numerous opportunities for students to lead worship services, serve in choirs (including the Kantorei and handbell choirs), or support worship life in a variety of roles. Service opportunities are also available through the Chapel's Social Action Leadership Team (SALT) and the Residential (peer) Ministry.

The Chapel works with Residential Life to maintain prayer chapels in each of the residence halls. These are places for prayer and meditation, song, and art. The Chapel also sponsors Fellowship Hall, an on-campus intentional Christian community centered in Guild/Memorial Halls. Common prayer, leadership discussions, and retreats are expectations of its members. All students are invited throughout the year to attend one of the spiritual retreats, which lead participants in the disciplines of prayer and spiritual discernment, especially in the area of life vocation. The university pastors are also available to all students for counseling.

In addition to the Chapel, Valparaiso University hosts a variety of organizations providing ministry to students, including St. Teresa of Avila Catholic Student Center, Intervarsity Christian Fellowship (IVCF), Greek Intervarsity Christian Fellowship (Greek IV), and Campus Crusade.

## Services For Students

Leadership Programs. The staff of the Harre 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, and the Leadership Experience class. 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)
plans and coordinates an array of programs and events that support student success in all aspects of campus student life. Although OMP is open to all students interested in learning about diverse cultures, its main emphasis is on providing assistance and support to students from under-represented groups: Black/AfricanAmerican, Asian/Pacific Islander, Hispanic/ Latino, Indian/Native American students, and Multi-racial students.

The Office of Multicultural Programs also works in partnership with minority student organizations and the university to offer programming that builds collaborative inclusive communities, encourages cross-cultural communications, supports diversity, and improves human relations. Program highlights: SMART Scholars Mentoring Program, Peace and Social Justice Symposium, Study Circles on Race Relations Program (three courses for credit), Hearst Scholarship, Book Assistance Program, Dr. Bill Marion First-Generation College Student Scholarship, and Multicultural Leadership Retreats and Workshops.

The Office of Multicultural Programs serves as a liaison and provides advice and support to many Valparaiso University organizations and their programs. Student organizations include: Black Student Organization (BSO), Latinos in Valparaiso for Excellence (LIVE), Asian American Association (AAA), and Delta Xi Phi, a Valparaiso University multicultural sorority.

Within the Gandhi-King Center for Diversity and Global Engagement in the Harre Union, the Office of Multicultural Programs provides a Multicultural Resource Library from which students may check out books, movies, cds and magazines. The Multi-Purpose Room within the Gandhi-King Center, is designed to provide students from different cultures a place to relax, hold meetings, watch a movie, cook, or study. Students may request to use the fully-equipped kitchen as well as reserve the reception area for special gatherings and socials.

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 the Harre Union, the Career Center houses a career resource library, conference/workshop room, student interview lounge, private interview rooms, and staff offices.

Services include career counseling; cooperative education/internship information and orientation; workshops/programs, and graduate school and job search assistance. 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 entry-level full-time, part-time, coop, internship and summer job opportunities are posted on the Career Center's web site. A print and online career library assists students in formulating and implementing career and educational plans.

The Career Center offers an extensive mock interview program and an annual Networking Reception and Etiquette Dinner to help students polish their professional skills. Additionally, the Career Center hosts career and graduate fairs to help students connect with employers and graduate programs.

The Career Center hours are 8 a.m. to 5 p.m., 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>.

Counseling Center. The services provided by the Counseling Center emphasize both the promotion of wellness and personal growth, and the remediation of problems of individuals and groups of the university. The services of the center are confidential and free of charge. Specifically, the Counseling 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 helpful lifeskills; a website and resource area containing personal development and academic success materials; a stressreduction training room; crisis intervention; and consultation services. The center is staffed by psychologists, counselors, social workers, a consulting psychiatrist, a consulting psychiatric nurse practitioner, 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 Counseling Center's Outreach Program includes the provision of presentations, seminars, and workshops on topics related to mental health and wellness.

The Counseling Center hours are 8 a.m. to 12 p.m. and 1 p.m. to 5 p.m. Monday through Friday. The Center is located at 1602 LaPorte Avenue on the north side of Alumni Hall. Appointments can be made in person or by calling 464-5002.

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 email, 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. to Noon and 1 p.m. to 5 p.m. Monday through Friday. The SAAFE Office is located on the LaPorte Avenue side of Alumni Hall. The website for SAAFE is <www.valpo.edu/ saafe/> and the email 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 licensed Masters-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 5 p.m. Monday through Friday. The OADE office is located in Counseling Services. The website for OADE is <www.valpo.edu/ organization/oade/> and the email 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, laboratory analysis, and treatment of illness and injury. Allergy injections 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 the Emergency Department or to a specialist in the community, as appropriate. 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, all full-time graduate 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.

Valparaiso University Health Form. 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 TB screening/testing information, 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 or her first semester.

Any Valparaiso University student who changes to full-time status from part-time status must meet the above requirements. Full-time students who take a full semester off (excluding summer) will have his or her health record reviewed by Health Center staff, and must meet current requirements. Certain colleges and programs within the University may have additional health-related requirement, i.e. Athletics and the College of Nursing.

Students who require immunotherapy (allergy injections) can continue their treatment at the Health Center for a nominal fee. The student's allergist must complete the Health Center Immunotherapy forms prior to the
first injection, and the student must provide the allergy serum. Orders on the allergist's stationery 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 email Health.Center@valpo. edu. In case of emergency, or when the Health Center is closed, students will find a list of afterhours clinics on the Health Center Web site <www.valpo.edu/heathcenter>.

## THE ACADEMIC SUCCESS CENTER

The Academic Success Center serves all students in achieving academic success. It serves as a referral system for campus-wide academic support services and resources including: tutoring, help sessions, mentoring, academic advising, the Career Center, Disability Support Services, and the Writing Center. The ASC provides a web-based directory and phone referrals for students to secure various kinds of academic assistance available in departments, professional colleges, learning centers and other campus offices. Additionally, the ASC coordinates the Peer Tutoring Program and the Strategies for Academic Success course (GS 100). ASC is a key resource for students who need help in achieving their academic potential. The Academic Success Center is located in the Christopher Center Library, room 100A, on the lower level. To secure referrals for use of any of the above services, call 219/464-5985, or email Academic.Success@valpo.edu. For more information about these services and to access the web-based directory, visit www.valpo.edu/ academicsuccess.

Tutoring. The ASC provides information about tutoring services available in a variety of forms and venues across campus.

1. Work with the professor - The first option for help in a course is for the student to work directly with the professor. Frequently, simple problems in handling coursework can be resolved by speaking to the professor.
2. Group and Individual Help Sessions Besides seeking help from the professor, the student should also seek help provided by departments, colleges and learning centers. Many departments have undergraduate teaching assistants and student aides who provide group help
sessions and individual tutoring for first and second year courses free of charge to students. Professional colleges also arrange academic support in conjunction with particular courses, and the University's learning centers offer group and individual learning assistance.
3. One-on-One Peer Tutoring - If these course-level help sessions provided by departments are not available or have not met the need, then students can seek the help of a peer tutor for a specific course by submitting a request form on the ASC web site. The ASC hires and assigns peer tutors for undergraduate and Bridge students. Peer tutors have successfully completed the courses for which they provide tutoring and are recommended by professors.
4. Study Groups - Students are also encouraged to 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 ASC will hire a peer tutor to lead a study group. The tutor is selected at the professor's recommendation, has successfully completed the course, and/or is a major in the discipline.
All students should feel welcome to contact the Academic Success Center. The tutoring sessions arranged by the ASC uphold the standards set by the University's Honor Code. It is the student's responsibility to abide by what is authorized and unauthorized aid in a particular course.

## 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. 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, or Paula Katsahnias at 464-6956 or by email at Sherry.DeMik@valpo.edu or Paula. Katsahnias@valpo.edu.

The University is committed to meeting its obligation to provide effective auxiliary aid and assistance to students with disabilities. The provision of auxiliary assistance is primarily the responsibility of the Department of Rehabilitation Services of the state in which the student maintains legal residence. If the request for assistance is denied by the local agency, Valparaiso University's provision of academic 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, SundayFriday. Call (219) 464-5216 for conference times that include most weekday hours 9-5 and Sunday-Thursday evenings. E-mail, IM, and phone conferences are also available. For more detail about appointments and for online resources, visit <www.valpo.edu/ writingcenter>.

Core Colleagues. The Writing Center supports the Freshman CORE, the Human Experience, through sophomore consultants who have firsthand experience with the texts and issues students consider as they prepare for class.

International Student Support. Both the Writing Center and Graduate Tutoring work closely with international students and visiting scholars. The services provide help with written and oral English and other academic matters. At Conversation Group, a weekly event organized by the writing consultants, international and American students meet for games and activities related to language and culture.

Location. The Writing Center and Graduate Tutoring Service are located in the Christopher Center, close to all library resources, the IT Help Desk, and Grinders café . Writing and consultation can take place in many environments and with a variety of experts.

## GRADUATE TUTORING SERVICE

Graduate Tutoring serves the academic needs of graduate students and strongly encourages
international students to take advantage of its services. In touch with graduate curricula, the tutors offer suggestions on the organization of papers, assist in research and citations, or help in understanding difficult assignments. If a graduate student expresses interest in additional one-on-one tutoring for a particular class, the graduate tutors will do all they can to find someone to help.

Graduate tutoring is available for drop-in or scheduled appointments on Monday-Thursday from 1-8, Friday from 1-4, and Sunday from 4-8. Summer hours vary. Also, students may submit their papers to graduate.tutor@valpo.edu; after a tutor reviews the paper, students can make an appointment to receive feedback.

## STRATEGIES FOR ACADEMIC SUCCESS (GS 100)

This course is designed for students who want to enhance their college academic life by strengthening their learning strategies
and study skills. Course topics may include: learning styles and preferences, time management, goal setting, motivation, notetaking methods, test-taking skills, reading strategies, critical thinking and writing, thesis sentences, overcoming procrastination, reducing stress and test-anxiety, and general study techniques. This course is coordinated through the Academic Success Center, is offered in the fall and spring semesters and is appropriate for all students who desire to enhance their academic performance. Freshman students may find the fall course particularly helpful as they make the transition to college life. Please see page 57 for the course description and other general studies course offerings.


Photo courtesy of John Webster, '12

## COLLEGE OF ARTS AND SCIENCES



Photo courtesy of William Liu, '12
Jon T. Kilpinen, Ph.D., Dean
Gary A. Morris, Ph.D., Associate Dean
Kathleen Scott Gibson, J.D., Assistant Dean
Nancy M. Scannell, M.A., Assistant Dean

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 9. 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 <br> ( 61 CR.) <br> A. General Education

Requirements .39-40 Cr.
This degree is available only to students
enrolled in the College of Adult Scholars.

1. CORE 110 The Human Experience 5 Cr .
2. CORE 115 The Human Experience 5 Cr .
3. THEO 200 The Christian Tradition 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.
Social Sciences . . . . . . . . . . . . 6 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 100-101). 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 and International Relations (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 The Human Experience5 Cr. CORE 115 The Human Experience 5 Cr .
2. Social Science . . . . . . . . . . . . . . . . 3 Cr.
3. KIN 100 Healthy Lifestyles . . . . 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 The Human Experience5 Cr.
CORE 115 The Human Experience5 Cr.
2. Theology . . . . . . . . . . . . . . . . . . . 6 Cr.

THEO 200 The Christian Tradition 3 Cr.
One 300-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 200, Literary Studies.
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 145/150) . . . . . 3 Cr.
5. Social Sciences. . . . . . . . . . . . . . . 6 Cr.

Two three-credit courses from two different subject areas in the social sciences: Economics, Gender Studies, Geography courses listed specifically as Social Science courses, Political Science and International Relations, and Sociology
6. Natural Sciences .6-8 Cr.
Two courses of at least three credits each, for a total of at least six credits; each course must have a laboratory component and be selected from two of the following subject areas: Astronomy, Biology, Chemistry, Physical Geography, Meteorology, Natural Science (NS) Physics, and Psychology. Alternatively, students may fulfill this requirement with two NS-designated courses.
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.

KIN 100 Healthy Lifestyles . . . . 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 and International Relations, 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.

Students may not pursue Honors Work as part of an individualized 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 fortyeight credit hours from one subject area may be applied toward the 124 required for graduation. This limitation does not apply to students pursing an English major and an English Creative Writing or Professional Writing minor, the Bachelor of Music or Bachelor of Music Education degrees, the Bachelor of Fine Arts degree, the Bachelor of Physical Education with a major in Teacher Education.
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, International Economics and Cultural Affairs, International Service, and complementary majors in Modern European Studies, PreSeminary Studies, and Theology and 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 Applied Statistics, Business Administration, Environmental Studies, Ethnic Studies, Film Studies, Fundamentals of Business, Gender Studies, Human Aging, Peace and Social Justice, Philanthropic Leadership and Service, and Urban Studies may be added to departmental majors.

## BACHELOR OF LIBERAL AND PROFESSIONAL STUDIES (124 CR.)

Students enrolled through the College of Adult Scholars program may choose to complete the Bachelor of Liberal and Professional Studies degree, which builds upon the Associate of Arts degree and its concentration options.

In addition to meeting the requirements for the Associate of Arts degree, students must complete the following:
A. General Education

Requirements . . . . . . . . . . . . . . . . . . . 4 Cr.
Quantitative Analysis. . . . . . . . . . . . . 3 Cr.
Choose one of:
KIN 100 Healthy Lifestyles . . . . 1 Cr. LS 489 Professional and Career Development . . . . . . . . . . . . . . . . 1 Cr.
B. Liberal Arts Interdisciplinary Core 12 Cr . LS 430 Senior Seminar in Natural Sciences and Interpretation . . . . 3 Cr . LS 450 Senior Seminar in Religion, Culture and Value . . . . . . . . . . . . 3 Cr. Choose two from:

LS 410 Senior Seminar in the Humanities 3 Cr.
LS 420 Senior Seminar in the Social Sciences. . . . . . . . . . . . 3 Cr. LS 440 Senior Seminar in the Fine Arts . . . . . . . . . . . . . . . . . 3 Cr.
C. Major . . . . . . . . . . . . . . . . . . . . . . . . 30 Cr. Students take three additional courses (9 Cr.) in their Associate of Arts concentration to
complete a major. Coursework for this major draws from the same departments as the Associate of Arts concentrations, and the major is designated with the same nomenclature (Culture and Humanity, Social and Behavioral Science, or Communication and Expressive Arts). As an alternative, the student may select the 30-credit Individualized Major as described on pages 45-46.
D. Professional Studies Core . . . . .18-21 Cr.

Students complete the Fundamentals of Business Minor as described on page 235 or the Professional Studies Minor. Students choosing the Professional Studies Minor take coursework in five competency areas and complete an integrative project.

## PROFESSIONAL STUDIES MINOR (18 CR.)

1. Communication Skills . . . . . . . . . . 3 Cr.

Choose one of:
COMM 145 Interpersonal
Communication . . . . . . . . . . . . . . 3 Cr.
COMM 243 Public Communication 3 Cr.
ENGL 300 Introduction to Professional
Writing. . . . . . . . . . . . . . . . . . . . . 3 Cr.
2. Leadership and Team Building. . . . 3 Cr.

Choose one of:
COMM 210 Organizational Communication . . . . . . . . . . . . . . 3 Cr.
LS 421 Organizational Leadership and Team Development . . . . . . . 3 Cr.
3. Resource Management . . . . . . . . . . 3 Cr.

Choose one of:
ACC 205 Financial Accounting. . . . . 3 Cr.
BLAW 104 Legal Environment of Business 3 Cr.
ECON 221 Principles of Economics-Micro . 3 Cr .
FIN 282 Personal Finance ..... 3 Cr .
MGT 100 Introduction to Contemporary Business ..... 3 Cr .
MKT 304 Marketing Management. . 3 Cr.
PSY 270 Introduction to Industrial/Organizational Psychology . . . . 3 Cr.
4. Human Relations and Diversity . . . 3 Cr.

Choose three credits from:
MGT 304 Management and Organizational Behavior. . . . . . . 3 Cr.
GS 200 Study Circle on Race Relations2 Cr.
GS 201 Facilitator Training for Study Circles . . . . . . . . . . . . . . . . . . . . . . 1 Cr.
LS 422 Intercultural Communication 3 Cr .
LS 489 Professional and Career
Development . . . . . . . . . . . . . . . . 1 Cr.
ECON 233 Economics of Race and Gender . . . . . . . . . . . . . . . . . . 3 Cr.
SOC 160 Contemporary Social
Problems
3 Cr.

PHIL 120 Democracy, Education and
Multiculturalism . . . . . . . . . . . . . 3 Cr.
5. Using Technology . . . . . . . . . . . . . . . 3 Cr.

Choose three credits from:
ART 230 Desktop Publishing . . . . . . 3 Cr.
ART 231 Graphic Design I. . . . . . . . . 3 Cr.
CE 151 Construction Surveying . . . . 3 Cr.
COMM 110 Introduction to
Internet Communication. . . . . . . 3 Cr.
CS 115 Computers and Computation 3 Cr .
CS 128 Introduction to Programming 1-3 Cr.
CS 210 eCommerce and eBusiness
Technology . . . . . . . . . . . . . . . . . 3 Cr.
ENGL 400 New Literacies, Technologies,
and Cultures of Writing . . . . . . . 3 Cr.
GEO 215 Introduction to Geographic
Information Systems . . . . . . . . . . 3 Cr.
IDS 110 Business Spreadsheet
Applications
1 Cr.
IDS 111 Business Applications
Programming . . . . . . . . . . . . . . . . 1 Cr.
ME 104 Computer-Aided Design. . . 3 Cr.
6. Capstone Integrative Project . . . . . 3 Cr.

Choose one option:
LS 485 Practicum. . . . . . . . . . . . . . . . . 3 Cr.
LS 495 Integrative Project in Liberal and Professional Studies. . . . . . . 3 Cr.
CPED 381-383 Cooperative
Education I-III. . . . . . . . . . . . . . . . 3 Cr.

## 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 The Christian
Tradition. . . . . . . . . . . . . . . 3 Cr.
b. One 300-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 . |
|  | KIN 100 Healthy Lifestyles | 1 Cr . |

B. Music Requirements

The requirements for the major fields are given on pages 143-144.

## BACHELOR OF MUSIC EDUCATION DEGREE (137-139 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 86.
A. General Education Requirements

For details see Bachelor of Arts degree.

1. First Year Core . . . . . . . . . . . . . . 10 Cr.
2. Theology . . . . . . . . . . . . . . . . . . . 6 Cr.
a. THEO 200 The Christian Tradition. . . . . . . . . . . . . . . . 3 Cr.
b. One 300-level Theology course
3. Cultural Diversity course . . . . . 3 Cr .

ED 470 Home, School, and
Community Relations . . . . . . . . . 3 Cr.
4. Humanities . . . . . . . . . . . . . . . . . 3 Cr.
one of the following options:
a. A History Course . . . . . . . . . 3 Cr.
b. A literature course numbered 200 from English, Foreign Languages, or Theatre . . . . . 3 Cr.
c. A Philosophy course (except PHIL 145/150) . . . . . 3 Cr.
5. Social Sciences . . . . . . . . . . . . . . . 3 Cr . ED 306 School and Society
6. Natural Sciences. . . . . . . . . . . . 3-4 Cr.
7. Quantitative Analysis.. . . . . . . . 3-4 Cr.
8. KIN 100 Healthy Lifestyles . . . . 1 Cr.
B. Other Required Courses

PSY 110 General Psychology. . . . . . . 3 Cr.
COMM 198 Non-Linear
Video Editing . . . . . . . . . . . . . . . . 3 Cr. COMM 243 Public Communication 3 Cr .
C. Professional Education Requirements

1. ED 203 Introduction to Teaching 3 Cr .
2. ED 304 Educational Psychology 3 Cr.
3. ED 306 School and Society . . . . . 3 Cr.
4. ED 307 Media Education . . . . . . 3 Cr.
5. ED 308 Technology as Pedagogy 2 Cr.
6. ED 350 Seminary: Inquiry Through

Case Study
0 Cr .
7. ED 351 Seminar: Efficacy Through Curriculum and Assessment . . . 0 Cr .
8. ED 357 Designing Curriculum, Assessment, and Learning Plans 3 Cr .
9. ED 450, 451, 452 Seminars . . . . . 2 Cr.
5. ED 459 Supervised Teaching in the Secondary School Subjects . . . . 12 Cr.
6. ED $\mathbf{4 6 0}$ Literacies in the Content Areas. . . . . . . . . . . . . . . . 3 Cr.
7. ED 470 Home, School, and Community Relationships . . . . . 3 Cr.
8. MUS 489 School Music II . . . . . . 3 Cr.
9. SPED 440 Learning Exceptionalities

3 Cr .
D. Music Requirements

The requirements of the major field are given on page 144.

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 The Christian Tradition. . . . . . . . . . . . . . . . 3 Cr.
b. One 300-level Theology
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
(MATH 124 or 131) . . . . . . . . . . . 4 Cr.
8. KIN 100 Healthy Lifestyles .... 1 Cr.
B. Major Field Requirements

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

1. A science minor, $\underline{\mathbf{O R}}$
2. A non-science major, OR
3. The Fundamentals of Business Minor (page 235), OR
4. The Business Administration Minor (page 233), OR
5. A Secondary Education Major (page 86), $\underline{\text { OR }}$
6. An Applied Statistics Minor (page 232), OR
7. An Engineering Minor (page 207), OR
8. A Geographic Information Systems Minor (page 112).
OR two minimum science majors (astronomy, biology, chemistry, computer science, engineering, geography, 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 elementary education leads to the degree of Bachelor of Science in Education.

## A. General Education Requirements

For details see Bachelor of Arts degree.

1. First Year Core . . . . . . . . . . . . . . 10 Cr .
2. Theology . . . . . . . . . . . . . . . . . . . 6 Cr.
a. THEO 200 The Christian Tradition. . . . . . . . . . . . . . . . 3 Cr.
b. One 300-level Theology course . . . . . . . . . . . . . . . . . . . 3 Cr.
3. Cultural Diversity course . . . . . . 3 Cr.
a. ED 470 Home, School, and Community Relations . . . . 3 Cr.
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.
a. ED 306 School and Society . 3 Cr .
6. Natural Sciences. . . . . . . . . . . . .7-8 Cr.
a. PSY 110/111 General Psychology/Lab . . . . . . . . . . 4 Cr.
b. One of the following: . . . . .3-4 Cr. BIO 125, 151, 171, CHEM 111, 115, 121, 131, GEO 104, MET 103, ASTR 101/101L, PHYS 111/111L, 141/141L, NS 101, 102, 103
7. Quantitative Analysis . 4 Cr. MATH 213 Mathematics for
Elementary Teachers I
8. KIN 100 Healthy Lifestyles .... 1 Cr.
B. Education Requirements

The requirements for the elementary and secondary education majors are listed on pages 82-87.

## ${ }^{1}$ 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 The Christian
b. One 300-level Theology course . . . . . . . . . . . . . . . . . . . 3 Cr.
3. Cultural Diversity . . . . . . . . . . . 7 Cr.
a. Foreign Language (102 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. . . . . . . . . . . . . . 8 Cr.
7. Quantitative Analysis . . . . . . . . 3 Cr.
8. KIN $\mathbf{1 0 0}$ Healthy Lifestyles .... 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 The Christian
Tradition. . . . . . . . . . . . . . . 3 Cr.
b. One 300-level Theology
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.
c. A Literature course . . . . . . . 3 Cr .
d. A Philosophy course . . . . . 3 Cr.
5. Social Sciences . . . . . . . . . . . . . . . 6 Cr.
6. Natural Sciences. . . . . . . . . . . . . 6-8 Cr. Exercise Science majors must complete BIO 151 and CHEM 111.
7. Quantitative Analysis . . . . . . . . 3 Cr. A calculus course or MATH 124
8. KIN 100 Healthy Lifestyles . . . . 1 Cr.
B. Major Field Requirements

The first major, if the student has a double major, must be physical education. See page 127 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 The Christian Tradition. . . . . . . . . . . . . . . . . 3 Cr.
b. One 300-level Theology
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. KIN 100 Healthy Lifestyles .... 1 Cr.
B. Major Field Requirements
The first major, if the student has a double
major, must be social work. See pages 167168 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 Kinesiology.
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 Kinesiology 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 $\mathbf{1 6}$ 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, KIN, 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 16 credit hours of ROTC coursework toward a degree in the College of Arts and Sciences. These credits may be used as free electives only.
6. A student may apply no more than 15 credit hours collectively from the
professional colleges of the University toward a degree in the College of Arts and Sciences, subject to the following exceptions:
a. Students completing the Business Administration Minor may apply 21 credit hours in business administration.
b. 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.
c. 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 K-6
Additional content areas in:
Exceptional Needs-Mild Intervention Any subject areas listed under Secondary Teaching
License: Secondary Teaching
Grades 5-12 Content Areas:
English/Language Arts
World Languages-Chinese, French, German, Latin, Spanish
Mathematics
Science-Life Sciences, Physical Sciences, Chemistry, Physics, Earth/Space Sciences
Social Studies-Economics, Geographical Perspectives, Government and Citizenship, Historical Perspectives
Psychology, Sociology
Exceptional Needs-Mild Intervention
P-12 License
Health Education
Music Education
Physical Education
World Languages-Chinese, French, German, Latin, Spanish

## 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 Premedical Arts. All recommendations to the professional schools are sent out by this Committee: Associate Professors Goyne (Chemistry), K. Jantzi (Chemistry), Nelson (Psychology), ScaglioneSewell (Biology), Schoer (Chair, Chemistry), Scupham (Biology); Assistant Professor R. Clark (Chemistry).

Premedical and predental students are invited to join the Premedical 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 58), is offered in the Summer I Session (see page 246) 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 Premedical 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

Students who plan to attend law school after graduation should select any rigorous course of study for their majors. According to the American Bar Association, "The ABA does not recommend any undergraduate majors or group of courses to prepare for a legal education. Students are admitted to law school from almost every academic discipline. Taking a broad range of difficult courses from demanding instructors is excellent preparation for legal education." Based on these ABA recommendations, Valparaiso University does not require Pre-Law students to follow a specific curriculum. Instead, students are encouraged to select a major that will be both challenging and interesting and that will help them develop strong research and writing skills. Additionally, students may choose from an array of elective courses on legal topics offered by several of the College of Arts and Sciences departments, including Communication, Political Science and International Relations, and Sociology. The College of Business also offers courses in business law.

The presence of Valparaiso University Law School provides sill more opportunities for PreLaw students including access to a law library, frequent speakers of national and international prominence, and interaction with law faculty.

Pre-Law students at Valparaiso University are encouraged to be active in the Pre-Law Program, which provides academic advising, guidance on law school admissions, and several programs, including the Law School Fair, Mock Trial Team, Visit Day at the Valparaiso University Law School, and Law Career Day. Students may also participate in the student-run Pre-Law Society.

The combination of rigorous academic work and Pre-Law programming has prepared many of the University's graduates for placement in some of the finest and most prestigious law schools in the country.

To learn more about the Pre-Law Program, visit the website at <www.valpo.edu/prelaw> or contact the program coordinator at Kathleen. Gibson@valpo.edu.

## 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 Law School. 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 Law School:

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 Law School through the normal admissions process.
7. They must complete a minimum of 30 credits in the Valparaiso University Law School 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

Graduates of Valparaiso University are accepted into the seminaries not only of The Lutheran Church-Missouri Synod (LCMS) and the Evangelical Lutheran Church in America (ELCA), but also of other Protestant bodies, and into graduate divinity schools throughout the United States. (Students are encouraged to consult the Web sites of divinity schools or graduate programs in theology or religion for specific admission requirements.)

## Recommended Preparation for Admission

 to M.Div. Program at LCMS SeminariesThe LCMS seminaries in St. Louis, Missouri, and Fort Wayne, Indiana, recommend a bachelor's degree that includes a broad liberal arts curriculum and preferably the ability to read languages (especially German, Latin, Greek and Hebrew). Language skills can be acquired through courses provided at the Seminary as well. Students accepted into the M.Div. program must pass the Entry Level Competency Examinations (Old Testament content, New Testament content, Christian doctrine, Biblical Greek and Biblical Hebrew) before they can enroll in M.Div. courses. Valparaiso University offers courses in all of these areas of study through the Departments of Theology and Foreign Languages and Literatures. Finally, both seminaries expect applicants to have taken courses to improve written and spoken English: English
composition and writing, and speech (both writing and delivering).

For Students Preparing for Admission to the Seminaries of the ELCA

The eight seminaries of the ELCA offer a variety of post-baccalaureate degree programs, including the M.Div., which is the basic professional degree for those seeking ordination as pastors, and the M.A., which may be used to prepare for other ministries in and beyond the church (diaconal ministers, Associates in Ministry, and education).

While specific requirements for admission vary, the following captures the typical academic prerequisites:

1. a bachelor's degree from an accredited college or university (some seminaries specify the B.A. degree; others do not) with a cumulative GPA of 2.5-3.0 on a 4.0 scale;
2. a broad background in the liberal arts (English composition and literature, history, philosophy, psychology, the biological/natural and social sciences, and foreign languages);
3. some seminaries require up to two semesters of classical or koine Greek (which may often be met by means of a summer intensive language course).
Beyond these academic requirements, another part of the application for admission to the ELCA seminaries addresses personal qualifications. Those interested in pursuing a rostered ministry in the ELCA should also begin to forge a relationship with their synod candidacy committee as they being the application process.

Further information is available from the Chair of the Department of Theology and on the Department's Web site: <www.valpo.edu/ theology>.

## ARTS AND SCIENCES

## PRE-ENGINEERING PROGRAM

Applicants for admission to the College of Engineering may require additional work, usually in mathematics or the sciences, before admission is granted. Such students may be admitted to the College of Arts and Sciences for this preparation. Pre-engineering students may take engineering courses if they satisfy the prerequisites and corequisites. Pre-engineering students who do not maintain a cumulative resident grade point average of 2.00 or higher in each of the three categories listed in the College of Engineering Graduation Requirements section (page 209), may not be permitted to continue in the pre-engineering program unless they improve the quality of their work. Students should consult the Freshman Engineering Coordinator 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 prenursing requirements given on page 226 , 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. Email: 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; premedical, 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. Students may not pursue Honors Work as part of an individualized major.

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 first 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 CPED 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 above.

GS 100. Strategies for Academic Success.
Cr. 1. A seminar designed to offer skill development and student success strategies that will enhance and promote academic achievement. Topics may vary according to section and may include: effective learning strategies, test preparation (study plans), test-taking techniques, time management, overcoming procrastination, goal setting, critical thinking, reading strategies, note-taking methods, memory techniques, and using academic support resources on campus. A six-week course, plus 4 additional hours visiting campus resources.

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 $\mathrm{S} / \mathrm{U}$ 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 $\mathrm{S} / \mathrm{U}$ grade only and may be used in partial fulfillment of the Cultural Diversity component of the General Education Requirements. Prerequisite: GS 200.

## GS 202. Study Circles on Race Relations: Civic

 Engagement.Cr. 1. This course will be offered to students who have completed GS 200 and who want to continue to work on community race relations issues initiated in GS 200. Students earn the credit by expanding the scope of the GS 200 action plan. Students must file a proposal with one of the co-directors of the Study Circles program and identify a written reflection component specifically related to the project, in order to register for the course. The proposal must present a detailed overview of the work of the project. A minimum of 20 hours of work is required. This course is offered for S/U grade only and may be used in partial fulfillment of the Cultural Diversity course component of the General Education Requirements. Prerequisite: GS 200.

GS 220. Contemporary Issues in Philanthropy and Service.
Cr. 3. This course examines current trends and challenges in the fields of philanthropy, service, and non-profit leadership. Topics may include the rise in social enterprises, venture philanthropy, micro-lending, and the influence of technology on giving patterns. The course will also emphasize the shifting roles and relationships of the private, public, and non-profit sectors in meeting social needs and leading social change. Prerequisite: Core 115, CC 115, or permission of the instructor.

## GS 390. General Topics.

Cr. 1-3. A course on a specialized topic that may not fit conveniently within a particular department, or that may be interdisciplinary in nature.

## 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 multicultural 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 multicultural 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.

$2+2, \mathrm{Cr}$. 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: How to Save the Planet One Trout at a Time.
$2+3, \mathrm{Cr} .3$. An interdisciplinary course with laboratory designed to train students to apply the scientific method to restore a river. Through site visits and field observations, students will survey a river to discover limiting factors then plan and execute improvements. Discussions will include finding community partners, permitting and financing restorations and learning a philosophy which guides us to attainable ends. Fieldwork is suited for someone with an active lifestyle who enjoys the outdoors. This will be a hybrid course taught in Summer II. Lectures will be online; laboratories (fieldwork) will be on Saturdays from 9 a.m. to 4 p.m.

## NS 104. Principles of Evolution.

$2+2$. Cr. 3. An introduction to evolutionary principles. Topics may include mutation, selection, genetics, abiogenesis and speciation. Responses to evolutionary theory, including social Darwinism, eugenics and creationism, will also be discussed. This course is intended for non-science majors for partial fulfillment of the General Education requirements in Natural Science.

NS 290. Investigation of Contemporary Topics in Science. $2+2, \mathrm{Cr}$. 3. A team-taught course that includes modules focused on issues in contemporary science that require some basic understanding of multiple disciplines, from the set of biology, chemistry, earth science, mathematics, and/ or physics. Classroom lectures and discussions will provide the basic science and mathematical content knowledge required to explore interdisciplinary science issues. The laboratory will provide an environment in which the students will construct numerical models of complex physical systems. This course does not fulfill the Natural Science General Education requirement. Prerequisites: Students must be admitted to the Secondary Education program and have junior standing or consent of the instructor.

## NS 490. The Scientific Endeavor.

Cr. 3. (Also offered as CHEM 490 and PHYS 490.) 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 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.

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

## GS 338. Core Course: Chicago: A City of Many Dimensions 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 238 for course descriptions and the Urban Studies Minor requirements.

## Actuarial Science

Associate Professor Patrick Sullivan, Director.

Administration. This program is administered by the Department of Mathematics and Computer Science in consultation with the Economics Department and the College of Business.

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 the program director.

Major Requirements. A minimum of 63 credit hours approved by the program chair is required. Specific required courses are listed below. Students completing the Actuarial Science program may apply 20 credit hours in business administration courses toward the Bachelor of Science degree. Introductory courses fulfill the Quantitative Analysis General Education Requirement and 3 of the 6 credits required for the Social Science General Education Requirement.

Students who pursue both an Actuarial Science major and the Business Administration Minor will be required to graduate with a total of 133 credit hours.

## 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 . . . . 1 Cr.
IDS 111 Business Applications Programming . . 1 Cr.
CS 128 Introduction to Programming. . . . . . . . . . 1 Cr.
MATH 131 Calculus I . . . . . . . . . . . . . . . . . . . . . . . . 4 Cr.
MATH 132 Calculus II . . . . . . . . . . . . . . . . . . . . . . . 4 Cr.
MATH 264 Linear Algebra. . . . . . . . . . . . . . . . . . . 3 Cr.
Total........................................ . . . 26 Cr.

## Probability and Statistics

STAT 140 General Statistics
OR STAT 240 Statistical Analysis
OR IDS 205 Business Statistics . . . . . . . . . . 3 Cr.
STAT 340 Statistics for Decision Making
OR ECON 325 Econometrics . . . . . . . . . . . . . 3 Cr.
STAT 341 Probability .......................... . . 4 Cr.

STAT 342 Mathematical Statistics. . . . . . . . . . . . . 3 Cr.
STAT 343 Time Series Analysis. . . . . . . . . . . . . . . 3 Cr.
STAT 344 Applied Probability and
Statistical Decision Theory . . . . . . . . . . . 3 3 Cr.
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 19 Cr.
Finance and Modeling
FIN 304 Financial Management. . . . . . . . . . . . . . . 3 Cr.
FIN 410 Theory of Corporate Finance. . . . . . . . . . 3 Cr.
FIN 420 Investment Management . . . . . . . . . . . . . . 3 Cr.
FIN 425 Financial Derivatives . . . . . . . . . . . . . . . 3 Cr.
ECON 321 Intermediate Micro-Economic Theory
OR ECON 324 Managerial Economics. . . 3 Cr.
Total........................................ . . 15 Cr .
Capstone Course
ACRS 325 Actuarial Modeling. . . . . . . . . . . . . . . . 3 Cr. Total Program Requirement . . . . . . . . . . . . . . . . 63 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.
STAT 341 Probability . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.

## ACRS 325/525. Actuarial Modeling.

Cr.3. A study of actuarial models in the context of insurance. Core topics include autoregressive timeseries, 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. $\mathrm{S} / \mathrm{U}$ 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 Baas (Political Science and International Relations), Sponberg (English), Uehling (English);<br>Associate Professors Bloom (History), Buggeln (Christ College, Chair), Longan (Geography), Ruff (English).

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 (io 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 (see page 12).

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 \& 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 The 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 Art3 Cr. CC 300 Seminar 3 Cr .
CC 325 Seminar (with approval of committee chair and consent of the Dean of Christ College) .... 3 Cr.
ECON 233 The Economics of Race and Gender. 3 Cr.
ENGL 365 Studies in American Literature. .... 3 Cr.
ENGL 390 Topics in Literature (with the approval of the committee chair) . . . . . . . . . . . . . . . . . . . 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.
GEO 274 North American Indian on Film ..... 3 Cr.
GEO 301 Regional Geography: United States and Canada ............................... . . 3 Cr.
GEO 474 Historical Geography of the U.S. . . . . 3 Cr.
HIST 225 Alternative Perspectives of United States History . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
HIST 321 The American Revolution, 1763-1789 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.

AMST 497. Honors Work in American Studies.
Cr. 3. See Honors Work, page 55.
AMST 498. Honors Candidacy in American Studies. Cr. 3. See Honors Work, page 55.

## Art

Associate Professors Corazzo, Sirko (Chair), Tomasek; Assistant Professor S. Jantzi.

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. 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 new media arts; and in the field of art education. A graduating art major is also prepared for graduate study in art history and the fine arts.

Majors. The department offers three majors in art.

Art Major. A minimum of 30 credit hours in art, that must include ART 101 or 102, 121, 130 or 132,162 or $163,210,221,231$, and 151 or 251.

Studio Arts Major. A minimum of 45 credits in art, that must include ART 101, 102, 121, 130, $132,151,215,221,222,227,251,335$, and 435.

Digital Media Arts Major. A minimum of 45 credits in art, that must include ART 101, 102, $121,130,132,163,224,231,232,263,285,299$, 336 , and 436.

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, 130 or 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.

Specialization in art education is possible in the B.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 their advisor prior to 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 issues in contemporary art, symbolism and global art history. 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 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 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.

## MUSEUM STUDIES

## ART 210. Museum Studies.

Cr . 3. Introduces student to the practices of museums and collection maintenance, based within the nationally-recognized Brauer Museum of Art. Students learn about the duties of the director, curator, registrar, and preparator.
Study includes discussion of texts and general
museum operations, exposure to careers in art museums, and meetings with professionals in the field. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

## STUDIO

## ART 121. Drawing.

$0+6, \mathrm{Cr} .3$. 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 130. Introduction to 2D and 3D Design.

 $0+6$, Cr. 3. An introduction to the visual language and materials used in the studio arts. Students explore both two-dimensional and three-dimensional elements and principles of organization within a work of art. Materials used may include ink, paint, collage, photomontage, wire, plaster, wood, etc. Field trip. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.ART 132. Introduction to Design and Digital Media. $0+6, \mathrm{Cr} .3$. An introduction to the basic elements and principles of Digital Media Arts. Student learn basic familiarity in Adobe Photoshop, Adobe Illustrator, and time-based media. 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, 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.

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

## ART 163. Introduction to Digital Photography.

Cr . 3. Introduction to digital photography, addressing how images are made, seen, and valued. Each student must have a working digital camera. Field trip. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

ART 215. Printmaking.
$0+6, \mathrm{Cr} .3$. Students will gain a basic familiarity with the various methods of creating original prints. Whereas other forms of pictorial art focus on the creation of a unique product, printmaking is primarily about creating a matrix from which multiples can be generated. Types of printmaking covered in the class will include serigraphy or screenprinting, intaglio (specifically drypoints made using plexiglass plates), monotype, and relief. Students will learn concepts such as proofing and editioning, and will use an intaglio press for particular projects. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

## ART 221. Painting.

$0+6, \mathrm{Cr} .3$. 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.

## ART 222. Painting II.

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

## ART 224. Digital Video Art.

$0+6, \mathrm{Cr}$. 3 . Students will create video and audio art with an emphasis on developing experimental techniques and understanding the function of time in this medium. Students will work collaboratively and independently, and observe a portion of the history and aesthetics of film, video, and audio art. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements. Prerequisite: ART 132 or consent of the Chair of the Department.

## ART 227. Figure Drawing.

$0+6$, Cr. 3. An intermediate course in drawing from the human figure. Emphasis is placed on the unique formal, technical, and conceptual issues involved in the representation of the human form. Media used may include pencil, charcoal, conté crayon, pen, brush, or ink. Field trip. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

## ART 230. Desktop Publishing.

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.
$0+6, \mathrm{Cr}$. 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.

$0+6$, Cr. 3. Advanced problems in visual communications with emphasis on design in the commercial environment. Projects will feature brand, package, and publication design and development. Field trip. Prerequisite: ART 231, COMM 230, or consent of the instructor.

ART 251. Sculpture.
$0+6, \mathrm{Cr}$. 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. $0+6, \mathrm{Cr} .3$. Advanced problems in sculpture processes. Field trip. Prerequisite: ART 251.

## ART 262/562. Advanced Black and White

 Photography. $0+6$, Cr. 3. Advanced studies in techniques, history and aesthetics of black and white photography. Medium and large formats are available. Each student must have a working 35 mm camera. Field trip. Prerequisite: ART 162.
## ART 263/563. Advanced Digital Photography.

 $0+6, \mathrm{Cr} .3$. Advanced studies in techniques, history and aesthetics of digital photography in camera and software applications. Each student must have a working digital camera. Field trip. Prerequisite: ART 163.
## ART 285. Digital Animation.

$0+6$, Cr. 3. Students will be introduced to basic computer animation techniques, including three-dimensional modeling, computer drawing, and the creation of sound tracks to accompany the animation. Students may work both in collaborative and independent manners, and also observe a portion of the history of animation. Students will create small animations using a variety of software. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements. Prerequisite: ART 132 or consent of the instructor.

## 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.

ART 299. Multi-Media and Web Design. $0+6$, Cr. 3. (Also offered as COMM 299.)
This course focuses on the use of the World Wide Web for communication objectives. It includes functions and operations of advanced web design software, integration of digital audio and video with web content, and individual projects. Includes online course content delivery components. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements. Prerequisite: ART 132, COMM 110 or consent of the Chair of the Department.

## ART 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 threedimensional 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 335. Studio Art Thesis Planning.

Cr . 3. This course is dedicated to the research, planning, documentation, and presentation of the student's proposal in preparation for the spring semester thesis project, and is required prior to acceptance into the Senior Thesis program. Prerequisite: senior status and consent of the Chair of the Department.

ART 336. Digital Media Arts Thesis Planning. Cr . 3. This course is dedicated to the research, planning, documentation, and presentation of the student's proposal in preparation for the spring semester thesis project, and is required prior to acceptance into the Senior Thesis program. Prerequisite: senior status and consent of the Chair of the Department.

## 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 435. Senior Thesis in Studio Arts.

Cr. 3. This course is an intense project-driven learning experience supervised by faculty. Students will spend an entire semester working on projects designed, presented, and approved the previous semester. Final works created during this time will be exhibited at the end of the semester. Prerequisite: ART 335, senior status, and consent of the Chair of the Department.

## ART 436. Senior Thesis in Digital Arts.

Cr. 3. This course is an intense project-driven learning experience supervised by faculty. Students will spend an entire semester working on projects designed, presented, and approved the previous semester. Final works created during this time will be exhibited at the end of the semester. Prerequisite: ART 336, senior status, and consent of the Chair of the Department.

## 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 55.
ART 498. Honors Candidacy in Art. Cr. 3. See Honors Work, page 55.


## Biology

Professor G. Davis; Associate Professors Eberhardt, G. Evans, Scaglione-Sewell, Scupham (Chair), Swanson, Watters; Assistant Professors Dick, Bugajski.

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 (astronomy, 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 Fundamentals of 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.

Biology Research Intensive Concentration. The Research Concentration is intended for students primarily interested in pursuing graduate study. Qualifying students may participate in this highly-selective program. A minimum of 33 credit hours in biology fulfills the requirements of this concentration within the Bachelor of Science degree with a single major, plus one of the following: a non-science major, a Business Administration Minor, a Fundamentals of Business Minor, a science minor, a complementary Education major, or an Applied Statistics Minor. Courses must include BIO 171, 172, 195, 270, two of courses 290-380, two of courses 420-490, and six semesters of 495. Students must achieve and maintain a GPA of 3.0, both in the major and overall, to qualify for, and remain in, this program. Applications and additional information about this program are available from the office of the Chair of the Department.

Secondary Education Majors. Students intending to meet licensure requirements for secondary education with biology as their primary content area must complete a B.S. major of at least 32 credit hours in biology, which must include BIO 440, 460, 493 (Immunology), and either 430 or 450. Also required are NS 290 and 490. For more information on the requirements for the Secondary Education major, see page 86.

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.

Senior Assessment Examination. All graduating seniors will take the Biology Assessment Examination during their final semester of biology instruction. See the Chair of the Department for details.

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 and 172 or equivalent by passing the College Level Examination Program (CLEP) examination in Biology or the Advanced Placement

Examination (AP) in Biology are granted 8 credit hours toward graduation. Students who pass the International Baccalaureate (IB) Examination in Biology are granted 4 credit hours for BIO 171.

## BIO 125. Biotechnology.

$3+2, \mathrm{Cr} .4$. 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. $3+3, \mathrm{Cr} .4$. 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.
$3+3, \mathrm{Cr} .4$. 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 195. Introduction to Biological Research.

Cr. 1. An introduction to biological research methods and literature. Laboratory work is required. Typically taken in spring semester of the freshman year. Prerequisite: BIO 171 and consent of the Chair of the Department. S/U grade only.

## 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.

## 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 215. Fundamental Microbiology for Engineers. Cr. 3. A fundamental study of the structure, function, and growth of microorganisms. Roles of microorganisms in industry and the environment will be considered. Open only to students enrolled in the College of Engineering with sophomore standing or above, or with consent of the department chair. Prerequisite: CHEM 115.

## 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. $3+3, \mathrm{Cr}$. 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 example of current and probable offerings is Macroevolution.

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

BIO 321. Mathematical Models of Infectious Disease. Cr. 3. (Also offered as MATH 321.) An application of mathematical methods and concepts to the study of infectious diseases. Analysis of outbreaks and control methods (such as vaccinations), using differential equations and elementary matrix algebra. Prerequisite: MATH 131 and one of STAT 140, STAT 240, and PSY 201. This course is usually offered online during the summer semester.

BIO 340. Human Molecular Genetics.
Cr. 3. An expansion of principles covered in BIO 270, Genetics. This course explores complications of simple Mendelian genetics and related genetic technologies. Topics may include human genome mapping, sequencing and evolution, complex genetic traits, gene therapy, genetic testing and DNA fingerprinting. Special attention is given to the ethical issues raised by emerging technologies in genetics. Prerequisite: BIO 270 .

## BIO 350. Field Biology: Spring.

$2+4, \mathrm{Cr}$. 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.

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

## BIO 430. Plant Biology.

$3+3$, Cr. 4. An introduction to the principles and methods of plant systematics and their use in the understanding of plant form, function and natural history. Laboratories emphasize how genomics is shaping views of plant evolution. Laboratory work will also include a survey of plant taxonomy with an emphasis on the flora of the Midwest. Field trips required. Prerequisite: BIO 270.

## BIO 440. Ecology.

$3+4, \mathrm{Cr}$. 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.

$3+3, \mathrm{Cr} .4$. 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.

$3+3, \mathrm{Cr} .4$. 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, nonprofit environmentalgroups, 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, Biology Controversies, 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. $\mathrm{S} / \mathrm{U}$ 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. May be repeated for additional credit. S/U grade optional.

## BIO 497. Honors Work in Biology.

Cr. 3. See Honors Work, page 55.
BIO 498. Honors Candidacy in Biology. Cr. 3. See Honors Work, page 55.

## 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


#### Abstract

Associate Professors Engerer (Chair), Goyne, K. Jantzi; Assistant Professors R. Clark, Holt, J. Schoer; Visiting Professor Leach.


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 Valpo's 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. The Department of Chemistry offers two majors, in Chemistry and Biochemistry, with five degree options.

1. Bachelor of Arts degree in Chemistry. 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 315 or 321).
2. Bachelor of Science degree in Chemistry - Double Major. When combined with a minimum major in another science (see page 48), a Bachelor of Science degree may be obtained with 27 credit hours in chemistry. Courses must include CHEM (121 or 131), (122 or 132), 221, 222, 230, and (311 or 321).
3. Bachelor of Science degree in Chemistry. 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).
4. ACS Certified Bachelor of Science degree in Chemistry. This degree option meets the guidelines of the American Chemical Society. A minimum of 40 credit hours in chemistry is required. Courses must include CHEM (121 or 131), (122 or 132), 190, 221, 222, 230, 315, 321, 322, 421, 422,2 credit hours of 495 , and a least 2 elective credit hours from $300-$ level or $400-$ level courses. PHYS 141 and 142 (with labs) and MATH 270 are required for certification. CHEM 495 may be taken instead as the Honors Work sequence, 497 and 498.
5. ACS Certified Bachelor of Science degree in Biochemistry. This degree option meets the guidelines of the American Chemical Society. A minimum of 41 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 141 and 142 (with labs) and MATH 270 are required for certification. The research conducted in CHEM 495 should 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 3. 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, including at least 8 credits numbered 200 and above, constitutes a minor.

Secondary Education Majors. Students intending to meet licensure requirements for secondary education with chemistry as their primary content area must complete a B.S. major of at least 32 credits in chemistry (options 3,4 or 5 above). In the 32 -credit major, CHEM 315 and 421 must be included. Also required are CHEM 493, MATH 131, NS 290 and 490, and 8 credits of physics.

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 121 and 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 nonscience 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.
$3+3, \mathrm{Cr} .4$. 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, predental, 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.

## 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.

$3+3, \mathrm{Cr}$. 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.
$3+4, \mathrm{Cr} .4$. 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. Recommended: CHEM 230 and PHYS 112 or 142. 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. Recommended: CHEM 230.

## 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. $0+4$, 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.
$3+3 \mathrm{Cr}$. 4. A theoretical study of chemistry involving thermodynamics, kinetics and modern structural concepts. Prerequisites: CHEM 221, MATH 132, PHYS 142. Recommended: CHEM 230, MATH 270.

## CHEM 322. Physical Chemistry II.

$3+3$, Cr . 4. A continuation of CHEM 321. Prerequisite: CHEM 321.

## CHEM 332. Advanced Instrumental Analysis.

$2+4, \mathrm{Cr}$. 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.

 $0+4, \mathrm{Cr}$. 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 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 only. 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 only. 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. (Also offered as NS 490 and PHYS 490.) 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 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 only.

## 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 499. May be repeated for additional credit. S/U grade only. Prerequisite: consent of Chair of the Department.

CHEM 497. Honors Work in Chemistry. Cr. 3. See Honors Work, page 55.

CHEM 498. Honors Candidacy in Chemistry. Cr. 3. See Honors Work, page 55.

CHEM 499. Chemistry Colloquium.
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 only.

# Chinese and Japanese Studies 

Administrative Committee: Associate Professors Lin (Political Science and International Relations, Chair), Longan (Geography), Nelson (Psychology), Pati (Theology), Prough (Christ College), Raman (Economics); Assistant Professors Kavanagh (Foreign Languages and Literatures), Ridgway (Foreign Languages and Literatures, J. Schoer (Chemistry), Xia (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 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 NonWestern 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 200 or 250 or EAST 390; POLS 332; 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 200 or 250 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 Historyof Art: East Asian Topics . . . . . . . . . . . . . . . 3 Cr.
FLC 101 Beginning Chinese I.................... . . 4 Cr.
FLC 102 Beginning Chinese II ..... 4 Cr .
FLC 203 Intermediate Chinese I ..... 4 Cr .
FLC 204 Intermediate Chinese II ..... 4 Cr .
FLC 305 Advanced Chinese I. ..... 4 Cr .
FLC 306 Advanced Chinese II ..... 4 Cr .
COMM 390 Topics and Projects:East Asian Topics.$1-3 \mathrm{Cr}$.
ECON 290 Topics in Economics: East Asian Topics. ..... 3 Cr .
ECON 390 Topics in Economics:
East Asian Topics. . . . . . . . . . . . . . . . . . . . . . 3 Cr.
GEO 301 Regional Geography: Asia. . . . . . . . . . . 3 Cr.
HIST 240 Introduction to East Asian Culture . . . 3 Cr.
HIST 341 Revolution and Its Roots: The
Making of Modern China . . . . . . . . . . . . . . 3 Cr.
HIST 342 Tragedy and Triumph: The Makingof Modern Japan ......................... 3 Cr.


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.

EAST 109, 110, 209, 210, 309 and 310 are regularly offered in China, where students attend language classes 15-18 hours per week. These credits may apply toward the general education foreign language requirement.

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.

## EAST 110. Intensive Elementary Chinese:

## Conversation.

Cr. 5. An intensive course in basic Chinese conversation. Usually taken concurrently with EAST 109.

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.

## 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.

## EAST 210. Intensive Intermediate Chinese:

 Conversation.Cr. 5. An intensive course in Chinese conversation. Usually taken concurrently with EAST 209.

## 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. Regularly offered in Hangzhou. Prerequisite: FLC 204.

## 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. Regularly offered in Hangzhou. Prerequisite: FLC 204.

## 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 Asiarelated 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.

## EAST 390. Topics in East Asian Studies.

Cr. 3. A study of particular topics related to issues in East Asian culture and Society. Topics include Human and Divine in China, Work and Contemplation in Buddhism and Christianity, and Health and Healing: East and West.

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 55.

## EAST 498. Honors Candidacy in Chinese and

 Japanese Studies.Cr. 3. See Honors Work, page 55.

## 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 Neff, Ziegler (Chair); Assistant Professors Paupore, Powell, Steinwart; Lecturer Oren.

The Department of Communication focuses on teaching the process of communication from the development of strategic messages to their delivery through contemporary digital media and other modalities. In all of our courses, the department encourages students to become ethical, critical, and effective sources and receivers of communication; we also endeavor to motivate our students 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 32 credit hours in either Communication (including either of the optional concentrations of Communication Law or Public Relations) or Digital Media. Students may not have a double major within the department or a major and a minor within the department.

Communication Major. Complete COMM $100,243,244,265,301,345,386,499$ and one of the following concentrations:

General Communication: Complete 9
additional COMM credits.
Communication Law: Complete COMM 374 and 6 additional credits from the following: COMM 302, 366, 373, or 375.

Public Relations: Complete COMM 362, 363, and 364.

Digital Media Major. Complete COMM 100, 198, 243, 251, 299, 301, 386, 499, and 9 additional COMM credits from any of the following: COMM 230, 320, 250, 261, 262, 286, 322, 330, 353, $373,380,382,385,450$, or 490.

Minor. A minimum of 15 credit hours in communication constitutes a minor.

General Communication Minor: Complete any 15 credits of COMM courses.

Communication Law Minor: Complete COMM 301, 302, 373, 374, and 375.

Digital Media Minor: Complete 15 credits selected from the specified courses in the Digital Media major.

Public Relations Minor: Complete COMM $265,362,363,364$, and 3 additional credits in communication.

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 two 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 video and audio 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. The Weather Studio features a WSI weather graphics satellite feed.

Student Organizations. The department offers co-curricular opportunities with awardwinning student-run campus media, including WVUR Radio, The Source 95.1, VUTV campus cable channel, The Torch weekly campus newspaper, and The Beacon annual yearbook. The department sponsors a chapter of the National Communication Association's Lambda Pi Eta honor society and has active student chapters of the Association for Women in Communications, the Public Relations Student Society of America (PRSSA), and the studentoperated SPARK public relations unit. 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 Association, which compete against schools from across the country.

## GENERAL COMMUNICATION COURSES

COMM 100. Communication Processes and Practice.
Cr. 3. This 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 such as public communication, mass media (broadcast and print), public relations, and digital and mass communication technology.

## 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 243. Public Communication.

Cr. 3. Public communication and listening skills are developed in the context of informative, persuasive, and ceremonial presentations. Students will also work in collaborative group environments.

## COMM 244. Persuasion and Advocacy.

Cr. 3. Theory in argumentation, advocacy, and persuasion is applied in a variety of communication contexts, with an emphasis on written advocacy. Students will prepare a comprehensive final project related to their field of study.

## COMM 261. Media Writing Styles.

Cr . 3. Media writing styles are studied in a variety of contexts, including Web and print.

## 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 320. Internet News Delivery.

Cr. 3. This course examines best practices for delivering news via the World Wide Web, digital media, and broadcast. Emphasis will be placed on writing in a deadline environment.

## COMM 322/503. Sports Media Formats.

Cr. 3. This course serves as an introduction to the sports media industry by discussing the reporting, producing, and planning that goes into all forms of media. In addition to the how and why of sports media, the ethics of sports journalism, and the role of sports in society will also be examined.

## COMM 345/512. Leadership Communication.

Cr. 3. This course examines leadership communication in a variety of global and multicultural contexts. May include the topics of issue and risk communication among corporate, non-governmental (NGO), and public relations (PR) agency relationships.

COMM 360. Strategic Communication and Technology.
Cr. 3. This course focuses on the multiple channels of traditional and emerging technologies used for communication at the personal and organizational levels. Helps students critically evaluate communication methods for their effectiveness in given situations.

## COMM 365. Corporate Advocacy and Activist

 Communication.Cr. 3. This course examines rhetorical and ethical implications of corporate image and issue management campaigns, including their influence on culture and governance. This course addresses both adversarial and collaborative approaches with activist groups, non-governmental organizations (NGOs), and other stakeholders.

COMM 366. Negotiation and Conflict Resolution. Cr. 3. This course examines the theory and process required to achieve favorable negotiation outcomes and to resolve conflicts. A significant emphasis is placed on applied learning and skill building while completing negotiation simulations. A course fee is required.

COMM 371. Case Studies in Leadership Communication.
Cr . 3. The relationship between communication and performance and the importance of a leader's role as a communicator are explored through case studies.

COMM 372. Risk and Emergency Incident Communication.
Cr. 3. This course examines perspectives on communicating risk and coordinating high impact incidents in organizations and society. It will include case studies and simulations from environmental, health, and digital media contexts.

COMM 386. Internship.
Cr. 2. This course includes supervised work experience with an organization related to the student's field of study in communication. Students will reflect on their experiences in an online collaborative environment and make a final oral presentation about the internship. 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 481 (formerly COMM 381). Cooperative Education in Communication I.
Cr. 0.5-3. This course provides professional work experience with a cooperating employer. Written report required. Prerequisite: approval of the Chair of the Department.

COMM 482-483 (formerly COMM 382-383). Cooperative Education in Communication II-III. Cr. 0.5-3. Continuation of COMM 481. Prerequisite: COMM 481 and approval of the Chair of the Department. May be repeated beyond 483 for additional credit.

## COMM 490. Topics in Communication.

Cr . 3. The topics examined will involve an indepth study of a particular subject in a field of communication or digital media, and may change from semester to semester. Prerequisite: junior standing or permission of the instructor.

## 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 55.
COMM 498. Honors Candidacy in Communication. Cr. 3. See Honors Work, page 55.

## COMM 499. Capstone Senior Project.

Cr. 3. This course provides a collaborative, teambased communication project that integrates communication and digital media expertise. It will incorporate theory and original research, from proposal through execution and evaluation.

## DIGITAL MEDIA COURSES

## COMM 198. Non-Linear Video Editing.

Cr . 3. This course will introduce basic principles of digital non-linear editing and explore digital video formats and applications. Students will produce projects using computer editing software.

## COMM 230. Desktop Publishing.

Cr. 3. (Also offered as ART 230.) This course provides an introduction to computer information display techniques ranging from computergenerated illustration, charts and graphs to newsletter and related page layout procedures. No prior computer experience is required.

## COMM 250. The Radio Industry and Audio Production.

Cr. 3. This course is designed to give an introduction to the radio industry as well as an in-depth look into the techniques that go into creating, writing and producing short audio projects. State-of-the-art software will be a focal point of the class. The course will also look into how a radio station functions and what principles are used to program and promote contemporary radio stations.

## COMM 251. Media Production.

Cr. 3. This course teaches students media production. Students are introduced to the
practice, techniques, and concepts related to studio and field-based digital project management. Prerequisite: COMM 100 and 198.

## COMM 286. Campus Media Practicum.

Cr . 1. This practicum is designed to provide credit for substantive work in an approved position on the staff of the campus media outlets, including WVUR (the campus radio station), The Torch (the campus newspaper), VUTV (the campus cable channel), and the Beacon (the campus yearbook). 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 299. Multi-Media and Web Design. Cr. 3. (Also offered as ART 299.) The course focuses on use of the World Wide Web for communication objectives. It includes functions and operations of advanced web design software, integration of digital audio and video with web content, and individual projects. Includes online course content delivery components. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements. Prerequisite: ART 132, COMM 198, or consent of the Chair of the Department.

COMM 330. Advanced Desktop Publishing. Cr. 3. This course develops proficiency in use of advanced software for desktop publishing and web design. Prerequisite: COMM 230.

COMM 353. Media Programming.
Cr. 3. This course examines the principles and practices of programming for television, the Internet, cable, and radio. It incorporates analysis of the theories and practices of programming, including their relationships to program development, promotion, marketing, and audience analysis.

COMM 380. Television Producing and Directing. Cr. 3. This course explores the strategies and methods for all areas of field and studio production, including audio recording, camera operations, lighting, and production planning. Prerequisite: COMM 251 or consent of the instructor.

COMM 382. Digital Media Leadership Communication.
Cr. 3. This course focuses on leadership communication in the context of organizations operating in a converging digital media environment. Emphasis will be placed on project coordination and oversight in digital media and publishing industries.

COMM 385. Advanced Media Production.
Cr . 3. Students are offered the opportunity to produce and direct television field productions
while developing specialized production skills (e.g., camera, sound, design, and lighting). The course covers advanced strategies of preproduction, production, and post-production techniques. Projects will be recorded and edited on digital equipment. Prerequisite: COMM 251 or consent of instructor.

## COMM 450. Documentary Production.

Cr . 3. Students are introduced to the process of documentary-style video production. Emphasis is placed on the production of video documentaries. Technical skills of producing, directing, writing, editing, camera, lighting, and sound are examined. Prerequisite: COMM 198 and 251, or consent of instructor.

## COMMUNICATION LAW COURSES

## COMM 301/570. Communication Law and Ethics.

Cr. 3. This course provides an introduction to the legal regulation of communication in traditional and digital environments. Topics include the First Amendment, defamation and privacy, reporter privileges and rights, government regulation of broadcast media, indecent and obscene speech, commercial speech, and an introduction to copyright law. This course also explores moral and ethical dilemmas which arise in the context of media communication.

## COMM 302/572. Intellectual Property.

Cr . 3. This course explores legal rights in nontangible property including creative works. Emphasis placed on copyright and trademark law, software and digital media protection, and unfair competition.

## COMM 373/603. Legal Environment of Digital Media.

Cr. 3. This course explores the legal decisions and government regulations which form the legal environment of digital media and communication. Topics include rights and restriction on the distribution of electronic media content, rights to privacy, copyright and trademark law, content licensing, and legal issues affecting designers and hosts of online digital media. Emerging topics in digital media creation and distribution are also discussed.

## COMM 374/571. Case Studies in Communication

 Law.Cr. 3. This course offers an in-depth exploration of current communication law issues, including FCC regulation, commercial speech, and Internet law. Emphasis is placed on case studies and court decisions. Prerequisite: COMM 301 or permission of the instructor.

## COMM 375. Courtroom Communication.

Cr . 3. This course introduces standards used by professionals when communicating within the legal environment. Emphasis is placed on oral advocacy within the structured environment of the courtroom and upon rules of evidence.

This course is available to students who have been, or will be, participating on the University's intercollegiate Mock Trial team. Prerequisite: consent of the instructor.

## COMM 376. Advanced Courtroom Communication.

Cr. 3. This course develops advanced communication techniques within the legal environment, exploring in more depth issues first introduced in COMM 375. Topics include structured argumentation, advanced oral advocacy, rhetoric, and advanced courtroom evidence. This course is intended for students who have prior experience in intercollegiate Mock Trial competition and are currently members of the University's Mock Trial team. Grading is S/U only. Does not count towards the Communication major or minor. May be repeated for credit once for a maximum of 6 credit hours. Prerequisite: COMM 375 or consent of the instructor.

## PUBLIC RELATIONS COURSES

## COMM 265. Global Public Relations.

Cr. 3. Public relations principles and practices, including history, development, and contemporary ethical, multicultural, and global constructs are examined. Experiential research and an evaluation project are included.

COMM 362/510. Global Public Relations: Cases and Campaigns.
Cr. 3. This course examines the connections between theory and practice in experiential public relations campaigns, and emphasizes research and evaluation for academic and/or public presentation. The course also focuses on critical thinking, creativity, problem solving, and strategy in communication with a variety of publics in a multicultural/global society.

COMM 363. Public Relations Leadership: the Agency Perspective.
Cr. 3. This course examines community relations, issue/risk management, and reputation/crisis communication. Social media marketing and technological platforms are also examined. Topics include corporate social responsibility, ethics, values, diversity, legal influences, transparency, and activism. An additional course fee is required.

## COMM 364. Public Relations: Social and Digital

 Relationships.Cr. 3. This course examines theories of public relations (PR) website development, strategies for building organizational-public relationships, and applications of a social interpretive approach to studying online communities.

## Economics

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

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. A minimum of 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, students are required to take MATH 131 and any one of the following: STAT 140, STAT 240, PSY 201, or IDS 205.

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 or 131, 122 or 132, STAT 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, one of ( 321,322 , or 325 ) and one additional course at the 300 level or above. In addition, MATH 131 is required.

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 or the Social Science 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.

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 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 or the Social Science 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.

## 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 and MATH 131.
## 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 and MATH 131.

## ECON 325/525. 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, 222, MATH 131 and one of the following: STAT 140, STAT 240, PSY 201 or IDS 205.

## 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.

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, and junior standing. May be used to fulfill the Cultural Diversity or the Social Science 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.

## 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.

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.

## 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 493/593. Seminar in Applied Statistics. Cr. 3. (Also offered as STAT 493.) An intensive study of selected topics, methods, techniques, and problems in applied statistics. Prerequisites: IDS 340, ECON 325, or STAT 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 55.

## ECON 498. Honors Candidacy in Economics.

 Cr. 3. See Honors Work, page 55.
## Education

Professor Westrick; Associate Professors Dudzinski, Gillispie, Grabarek (Chair); Assistant Professors Brauer, Chiatula, N. Davis, DeMik, Harrison, Cramer; Lecturer 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).

Accreditation. Valparaiso University is accredited by the Indiana Department of Education 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; school psychologists and school counselors (graduate level). 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. Please note that the requirements for licensure in Indiana are subject to change by the state and may affect education student requirements at any time.

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 or the Indiana Department of Education website <www.doe.in.gov/ educatorlicensing/>.

All undergraduate Education majors (Elementary and Secondary) are required to purchase access to "Task Stream" after being admitted into the Teacher Education program.

Elementary Education. Students who seek licensure as an elementary teacher complete the requirements of the Bachelor of Science in Education degree with a major in Elementary Education.

Secondary Education. Students seeking secondary licensure declare a complementary major in Secondary Education and an academic major in another department. The secondary education complementary major must be declared in the Office of the Registrar before admission to Teacher Education. 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 the "Academic Advising" section on page 40-41.

## Elementary Education (Grades K-6)

Completion of the degree requirements with a major in Elementary Education leads to the Bachelor of Science in Education degree. The General Education Requirements for this degree are found on page 49. The education and other requirements are listed below.

Education Requirements

ED 203 Introduction to Teaching. . . . . . . . 3 Cr.

ED 304 Educational Psychology . . . . . . . . 3 Cr.
ED 306 School and Society . . . . . . . . . . . . . 3 Cr.
ED 308 Technology as Pedagogy. . . . . . . . 2 Cr.
ED 310 Foundations in Early and
Emergent Literacy. . . . . . . . . . . . . . . 3 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 329 Literacy in the
Elementary School . . . . . . . . . . . . . . 4 Cr.
ED 350 Seminar: Inquiry Through Case Study 0 Cr .
ED 351 Seminar: Efficacy Through
Curriculum and Assessment. . . . . . . 0 Cr .
ED 357 Designing Curriculum,
Assessment, and Learning Plans ... 3 Cr.
ED 400 The Fine Arts Experience . . . . . . . 3 Cr.
ED 450 Seminar: Equity in Education. . . . 0 Cr.
ED 451 Seminar: Efficacy in
Professional Practice. . . . . . . . . . . . . . 1 Cr.
ED 452 Seminar: Undergraduate Research1 Cr.
ED 465 Literacy in Socio-Cultural
Contexts
4 Cr.
ED 470 Home, School, and Community Relationships

3 Cr .
SPED 440 Learning Exceptionalities. . . . . 3 Cr. One of:

ED 439 Supervised Teaching in the Elementary Grades

12 Cr.
SPED 449 Supervised Teaching in General and Special Education . . 12 Cr .
Total Education Requirements. . . . . . . . . 57 Cr.
Other course requirements:
COMM 243 Public Communication . . . . . 3 Cr.
Advanced Composition (one course) . . . . 3 Cr.
ENGL 300 Introduction to ProfessionalWriting
ENGL 321 Intermediate Composition
ENGL 380 Topics in Writing
ENGL 423 Short Story Writing
MATH 211 Laboratory in Elementary
Mathematics I ..... 0 Cr .
MATH 212 Laboratory in Elementary
Mathematics II. ..... 1 Cr .
MATH 214 Mathematics for Elementary Teachers II . . . . . . . . . . . . . . . . . . . . . . 4 Cr.
PSY 110/111 General Psychology/Lab . . . 4 Cr.
Total Other Requirements . . . . . . . . . . . . 15 Cr .

Elementary Concentrations. Elementary Education students are required to complete two areas of concentration in addition to the requirements for the major. The required concentration, Multicultural Literacy, is embedded in the block of required literacy courses. For the second concentration, elementary education students select from the approved list below. Minors or concentrations other than those listed must be appropriate for future elementary teachers and must be approved by the education department chairperson prior to beginning courses in those minors.

1. Concentration 1: Multicultural Literacy (included as part of required courses)
2. Concentration 2: Select one of the following minors:

Special Education
Biology
Chemistry
Chinese
English
French
German
Geography
History
Mathematics
Physical Education
Physics
Psychology
Spanish
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 the Education Department licensure officer.

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: Inquiry (9 credits)

ED 304 Educational Psychology . . . . . . . . 3 Cr.
ED 306 School and Society . . . . . . . . . . . . . 3 Cr.
ED 310 Foundations in Early and Emergent Literacy. 3 Cr .
ED 350 Seminar: Inquiry Through Case Study 0 Cr .

Block 2: Efficacy ( 18 credits)
ED 308 Technology as Pedagogy. . . . . . . . 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 329 Literacy in the Elementary School 4 Cr.
ED 351 Seminar: Efficacy Through Curriculum and Assessment. . . . . . . 0 Cr .
ED 357 Designing Curriculum, Assessment, and Learning Plans . . . 3 Cr.

Block 3: Equity ( 13 credits)
ED 400 The Fine Arts Experience . . . . . . . 3 Cr.
ED 450 Seminar: Equity in Education. . . . 0 Cr.
ED 465 Literacy in Socio-Cultural Contexts 4 Cr.
ED 470 Home, School, Community. . . . . . 3 Cr.
SPED 440 Learning Exceptionalities. . . . . 3 Cr.
Block 4: Professional Praxis (14 credits)
ED 451 Seminar: Efficacy in
Professional Practice. . . . . . . . . . . . . . 1 Cr.
ED 452 Seminar: Undergraduate Research1 Cr.
One of:
ED 439 Supervised Teaching in
Elementary Grades
12 Cr.
SPED 449 Supervised Teaching in
General and Special Education . . . . 12 Cr.
Elementary education students who would like to 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 19 credit hours in SPED classes to earn K-12 licensure in special education. Courses must include SPED 347, 441, 444, 445, 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 K-12 licensure in the mild intervention content area and several required teacher performance standards are embedded in additional education courses, the special education minor is open to education majors only.

## Secondary Education (Grades 5-12)

Completion of the degree requirements with a major in Secondary Education leads to the Bachelor of Arts or Bachelor of Science degree, depending on the teaching major. For the General Education Requirements for these degrees, see pages 44-49. The education and other requirements are listed below.

## Education Requirements

ED 203 Introduction to Teaching. . . . . . . . 3 Cr.
ED 304 Educational Psychology . . . . . . . . 3 Cr.
ED 306 School and Society . . . . . . . . . . . . . 3 Cr.
ED 307 Media Education . . . . . . . . . . . . . . 3 Cr.
ED 308 Technology as Pedagogy. . . . . . . . 2 Cr.
ED 350 Seminar: Inquiry Through Case
Study. . . . . . . . . . . . . . . . . . . . . . . . . . 0 Cr.
ED 351 Seminar: Efficacy Through
Curriculum and Assessment. . . . . . . 0 Cr.
ED 357 Designing Curriculum, Assessment
and Learning Plans . . . . . . . . . . . . . . 3 Cr.
ED 450 Seminar: Equity in Education. . . 0 Cr.
ED 451 Seminar: Efficacy in
Professional Practice. . . . . . . . . . . . . . 1 Cr.
ED 452 Seminar: Undergraduate Research1 Cr.
ED 460 Literacies in the Content Areas . . 3 Cr.
ED 489 Secondary Instruction in
Content Areas . . . . . . . . . . . . . . . . . . . 3 Cr.
SPED 440 Learning Exceptionalities. . . . . 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.
Total Education Requirements. . . . . . . . . 41 Cr .
Other Requirements
COMM 243 Public Communication . . . . . 3 Cr.
PSY 110/111 General Psychology . . . . . . . 4 Cr.
Total Other Requirements . . . . . . . . . . . . 7 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 the Education Department licensure officer.

Content Area Major. A content area major is
required of all high school teacher candidates. A content area major for teachers may have requirements beyond those of majors not preparing to teach. Students seeking to teach in a high school must major in one of the content areas listed on page 51 and approved for licensure.

## Four-Year Planning for Secondary

Education. Secondary Education majors should regularly consult both their education and academic major advisors prior to registration each semester. 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: Inquiry ( 6 credits)
ED 304 Educational Psychology . . . . . . . . 3 Cr.
ED 306 School and Society . . . . . . . . . . . . . 3 Cr.
ED 350 Seminar: Inquiry Through Case Study 0 Cr .

Block 2: Efficacy (8 credits)
ED 308 Technology as Pedagogy. . . . . . . 2 Cr.
ED 351 Seminar: Efficacy Through
Curriculum and Assessment. . . . . . . 0 Cr .
ED 357 Designing Curriculum,
Assessment, and Learning Plans . . . 3 Cr.
ED 489 Methods Courses . . . . . . . . . . . . . . 3 Cr.
Block 3: Equity (9 credits)
ED 450 Seminar: Equity in Education. . . . 0 Cr.
ED 460 Reading in the Content Areas ... 3 Cr.
ED 470 Home, School, Community. . . . . . 3 Cr.
SPED 440 Learning Exceptionalities. . . . . 3 Cr.
Block 4: Professional Praxis (14 credits)
ED 451 Seminar: Efficacy in Professional
Practice . . . . . . . . . . . . . . . . . . . . . . . . . 1 Cr.
ED 452 Seminar: Undergraduate Research1 Cr. One of:
ED 459 Supervised Teaching in
Secondary School. ............. 12 Cr .
SPED 449 Supervised Teaching in
General and Special Education . . 12 Cr .

Minor in Special Education. To earn a minor in Special Education, students must earn a minimum of 19 credit hours in SPED classes to earn K -12 licensure in special education. Courses must include SPED 347, 441, 444, 445, 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 K-12 licensure in the mild intervention content area and several required
teacher performance standards are embedded 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 304, and COMM 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 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 for Admission to Teacher Education must demonstrate competency in basic skills through submission of passing scores on ONE of the following standardized tests: 1) ACT with a score of at least 24 based on Math, Reading, Grammar, and Science; 2) SAT with a score of at least 1100 based on Critical Reading and Math; 3) GRE with a score of at least 1100 based on Verbal and Quantitative; 4) Praxis I with scores of 176 on Reading, 172 on Writing, and 175 on Math; 5) Praxis I composite score of 527 based on Reading, Writing and Math. Anyone with a Master's Degree from an institution that is accredited by a United States regional accrediting organization such as the North Central Association of Schools and Colleges is exempt from this requirement. If you have questions,
please see the director of licensure in the Department of Education.
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 is available in the ED e-Handbook on the department's web site, in the Placement Office, and from instructors in ED 203 and the Block I Seminar.
4. Dispositions.

Applicants must demonstrate in all classes the social and emotional maturity, 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, major advisor, education advisor, and 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 or complementary major in Secondary Education.
7. Checkpoint 1 Portfolio.

Applicants need to submit the required portfolio to the department. 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 during the Block 3 Seminar. 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. 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 $203,304,308,357,460,470,489$, 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. Dispositions.

Applicants must demonstrate in all classes the social and emotional maturity, responsibility and professional dispositions necessary for success in the teaching profession.
6. Checkpoint 2 Portfolio. Applicants must submit the required portfolio.
7. Recommendations. Secondary students must submit a written recommendation from their major advisor to take the Professional Semester.
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 any fieldwork in the department. Discovery of a criminal record may delay or preclude field assignments. 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 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 in the department's teacher education programs. A 40 clock hour field experience in an elementary, middle, or high school is required.

ED 304/504. Educational Psychology.
Cr. 3. This course will focus on human learning in the educational setting. Building on concepts introduced in the general psychology course, students will explore theories of child development, learning, and motivation. Students will investigate a variety of theories and apply them to educational situations to achieve a
deeper understanding of how children develop as learners. The course will center on a range of concepts, both cognitive and social, and on ways students might use these to become more insightful, sensitive, and skilled as educators. Prerequisite: PSY 110.

## ED 306/506. School and Society.

Cr. 3. This course will provide students with a historic overview of the cultural and economic forces that have shaped the purposes of schooling in the United States. May be used to partially fulfill the Social Science component of the General Education requirements.

## 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 308/508. Technology as Pedagogy.

Cr . 2. The primary aim of this course is to prepare teachers to theorize and integrate educational technologies in their teaching as a way to support student learning and technology skill-building.

## ED 310/510. Foundations in Emergent and Early Literacy.

Cr. 3. This course focuses on the emergent and early stages of literacy development. Drawing upon the evidence gleaned through case study research into literacy development in families and schools, the course highlights the professional characteristics, instructional practices, and assessment approaches that foster literacy learning in early childhood environments.

Note: No student is admitted to any course other than ED 203, ED 304, ED 306, and ED 310 unless admitted to the Teacher Education Program.

## ED 323/523. 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 324/524. 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 327/527. 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 329/529. Literacy in the Elementary School. Cr. 4. With a focus on the relationship between assessment, instruction, and curriculum, this course presents evidence-based paradigms for planning a classroom environment for literacy learning, designing diagnostic teaching sequences for individual learners, documenting responsiveness to intervention, and supporting literacy development for all learners in a diverse elementary classroom setting. Prerequisite: ED 310.

ED 350. Seminar: Inquiry Through Case Study. Cr. 0. This seminar provides an introduction to the qualitative research paradigm in education by emphasizing the foundations of case study research, ethical conduct as a researcher, and the tools of qualitative research methodology. S/U grade only.

## ED 351. Seminar: Efficacy Through Curriculum and

 Assessment.Cr. 0. This seminar serves as a professional learning community (PLC) that supports student connections between and across block courses and issues of teacher efficacy. $\mathrm{S} / \mathrm{U}$ grade only.

ED 357. Designing Curriculum, Assessment and Learning Plans.
Cr . 3. This course prepares pre-service educators to take an active role in identifying the desired results of instruction, determining what assessments constitute evidence of learning, and providing learning experiences in support of these pedagogical aims. This course must be taken before student teaching. A field component is required. Prerequisite: Admission to Teacher Education.

## ED 375/575. Middle Level Education.

Cr. 2. A study of the developmental characteristics of early adolescents, the organization of schooling to respond to those needs, and developmentally responsive curriculum in junior high/middle level education settings. This course will also focus on the interdisciplinary nature of the middle school curriculum.

ED 400. 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, theatre, and movement 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 Humanities: Fine and Performing Arts component of the General Education Requirements. Prerequisite: education major.

## 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 451, 452.

## ED 450. Seminar: Equity in Education.

Cr. 0. This seminar serves as a professional learning community (PLC) that supports student connections between and across block courses and issues of equity. $\mathrm{S} / \mathrm{U}$ grade only.

## ED 451/651. Seminar: Efficacy in Professional Practice.

Cr .1 . The primary aim of this seminar is to help future educators integrate their student teaching experience with university coursework and educational research. Course readings, assignments, and activities structure students; evaluation of their own teaching practice more broadly through collaborative, critical inquiry. The class supports development of the summative assessment for Checkpoint 3. Corequisite: ED 439, ED 459, ED 479, or SPED 449.

ED 452/652. Seminar: Undergraduate Research. Cr . 1. This course promotes inquiry into the questions of educational practice through action research. Periodic meetings over the course of a semester support students in conducting a scholarly review of professional literature, drawing conclusions from published research, formulating a plan for action research in an education setting, gathering and interpreting data, and sharing conclusions with professional audiences. Corequisite: ED 439, ED 459, ED 479, or SPED 449.

## 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 451, 452.

## ED 460/660. Literacies 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 465/565. Literacy in Socio-Cultural Contexts. Cr .4 . This course requires students to plan responsive instruction in a whole class setting and to prepare differentiated instructional plans for individuals and small groups within that classroom setting. Based upon an analysis of the classroom environment and the diverse learning needs of learners in that environment, students will prepare and implement literacy studies appropriate for the setting of their field placement. Prerequisites: ED 310 and ED 329.

ED 470/670. 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 offcampus 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 304.

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 451, 452.

ED 489. Secondary Instruction in Content Areas Cr. 3. A study of the instructional methods of content areas in secondary schools. Students will register for the section of ED 489 related to their
content area (content major) indicated on the course schedule.
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
The Teaching of Foreign Languages
FLF 489 French
FLGR 489 German
FLL 489 Latin
FLS 489 Spanish
HIST 489 The Teaching of Social Studies
MATH 489 The Teaching of Mathematics
MUS 489 School Music II
KIN 489 Methods of Teaching Secondary Physical Education
PHYS 489 The Teaching of Natural Sciences
POLS 489 The Teaching of Social Sciences
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 55.
ED 498. Honors Candidacy in Education.
Cr. 3. See Honors Work, page 55.

## 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. Topics include federal and state laws governing special education; processes involved in identifying students as having one of the disabilities considered "mild"; specific characteristics of students who have mild disabilities in various areas of development or functioning; characteristics of various education service delivery systems; and introduction to interventions for students with mild disabilities in grades 1-12. Course also include a 40 clock hour field component in an elementary or middle school or high school special education setting.

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 addressed in grades K-12 including reading/language arts, mathematics, and social studies and science content areas, social skills, study skills, vocational skills and adaptive behaviors. Course experiences emphasize effective, research-based teaching methods, diagnostic-prescriptive teaching techniques, and individual education/transition planning for students with mild disabilities at the elementary, middle school, and secondary levels. Includes a 40 clock hour field experience with students with mild disabilities at one of the developmental levels.. Prerequisite: SPED 347 or consent of the instructor.

## SPED 449. Supervised Teaching in General and Special Education.

Cr. 12. This course combines into one semester the experience of observation, classroom
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.

## 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 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, Juneja, Sponberg, Uehling (Chair); Associate Professors Buinicki, BurowFlak, Danger, Hanson, Owens, Ruff, Schuette; Assistant Professor Sampson.

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 sharpen 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 33 credit hours in English courses, beginning with ENGL 200; all other courses are numbered 300 or above. Courses must also 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 33 credit hours in writing or language-related courses. Courses must include ENGL 200 (a prerequisite for all other courses), 301,400 , and 492; three courses selected from 423, 424, 425,

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 33 credit hours in writing or language-related courses. Courses must include ENGL 200, 300, 400, and 491 and COMM 230; either ENGL 321 or 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 365 (with chair's approval), $368,369,380$, 386,390 (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 beginning with ENGL 200; all other courses are numbered 300 or above. Courses must also 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 200, 301,400 , and 492; and one course selected from ENGL 423, 424, 425, 431 and THTR 252. Additional courses may be selected from any English course numbered 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 200, 300, 400, and 491; either ENGL 321 or 431; and one course selected from ENGL 310, 441, 442, 443, PHIL 150. Additional courses may be selected from ENGL 365 (with chair's approval), 368, $369,380,386,390$ (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.

Minor in Teaching of English to Speakers of other Languages (TESOL). A minor in Teaching of English to Speakers of other Languages requires a minimum of 18 credit hours in writing and language-related courses.

Courses must include ENGL 368, 369, and 385; one course selected from ENGL 321, 380, or 431; and two courses selected from ENGL 441, 442, or 443.

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 AfricanAmerican Literature.

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 Office of the Registrar) 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, internships, 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.

Cr. 1-3. 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. Topics are variable. Literary Studies includes a variety of readings on a specific issue, theme, or literary type, and provides practice in writing critically and analytically about imaginative literature. Possible offerings include Utopian/Dystopian Literature, Seven Deadly Sins, Banned Books and Novel Ideas, Into the Wild, Horrible Husbands-Wicked Wives. May be used to fulfill the Humanities: Literature component of the General Education Requirements. May not be repeated for credit.

## 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 300 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 nonspecialist to understand what the problem is and how it was (or can be) solved.

## ENGL 321/521. 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 368/568. Teaching of English to Speakers of Other Languages: Theory and Methods.
Cr . 3. A study of the theoretical and historical background of second language teaching as well as theories of second language acquisition, with special attention to different cultural backgrounds. Topics include practical application of theories through methods of teaching, speaking, listening, and grammar. The course will employ readings, activities, and class discussions among students from various linguistic and cultural traditions, and require them to observe an ESL class as well as develop and teach an English language lesson. May be used to fulfill the Cultural Diversity course component of the General Education requirements.

ENGL 369/569. Teaching of English to Speakers of Other Languages: Theory and Practices.
Cr. 3. A study of practical applications of language learning theory involved in methods of teaching vocabulary, reading, and writing, with special attention to different cultural backgrounds. The course will employ readings, activities, and class discussions among students from various linguistic and cultural traditions. Students will observe an ESL class as well as develop and teach an English language lesson. May be used to fulfill the Cultural Diversity course component of the General Education requirements.

## 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 385. Practicum in TESOL.

Cr. 3. Exposure to and guidance in the practical work of teaching English to non-native speakers. Students spend approximately 30 hours in observation and 90 hours in preparation of lessons, teaching, and reflection. Prerequisite: ENGL 368 and 369.

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 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.

## 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. Prerequisite: ENGL 301.

## 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. Prerequisite: ENGL 301.

## ENGL 425/525. Creative Nonfiction.

Cr. 3. A workshop in various techniques of writing creative nonfiction, a genre that explores how the essay generates new forms when it borrows the techniques of fiction, poetry, and/or drama. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements. Prerequisite: ENGL 301.

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 writing processes in a more sophisticated and rigorous fashion. The course considers how to generate and organize ideas, how to adapt writing for 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 444/544. Sociolinguistics: Language Across

 Cultures.Cr. 3. A variable topics course which considers intersections of language, social structure, and culture, with emphasis on the study of linguistic and cultural diversity. Possible topics include the study of language variation cross-culturally on a global scale and the study of language variation
cross-culturally in the U.S. (may be repeated when topics differ). May be used to fulfill part of the Social Science component of the General Education Requirements.

## 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 novelists of the twentieth century writing in English, 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. 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, 424,425 , 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 include Literary Modernism, and Women and Victorian Print Culture. 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 55.
ENGL 498. Honors Candidacy in English Literature. Cr. 3. See Honors Work, page 55.

## Environmental Science

Administrative Committee: Professor Arkkelin (Psychology); Associate Professors Aljobeh (Civil Engineering), Eberhardt (Biology), Ganesh Babu (Geography and Meteorology), Longan (Geography and Meteorology, Chair), G. Morris (Physics and Astronomy), Shingleton (Economics); Assistant Professor J. 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, through collaboration with faculty in multiple disciplines who demonstrate excellence in teaching and scholarship of environmental merit, gives its students the requisite scientific background necessary for assessing environmental systems, along with philosophical, pedagogical, and social reflection on environmental issues. The core curriculum includes perspectives on scientific knowledge, field work, and communication skills. Elective courses expose students to a wide range of environmental topics from a variety of disciplines, providing both an engaging curriculum that promotes interest in and passion for environmental issues, and opportunities for cross-disciplinary interaction. An Environmental Science major positions the student to enter into graduate work in environmental science or policy, or into the professions of environmental management and protection.

Major Requirements. A minimum of 51 credit hours approved by the Administrative Committee is required as specified below:

1. Environmental Science Core ( 29 credits): BIO 250 or GEO 260, BIO 171, BIO 172, CHEM 121, CHEM 122, GEO 104, GEO 215, PSY 201.
2. Environment and Society elective (3 credits): Take one course from GEO 321, ECON 210, PSY 355, or any new or topic course approved by the chair of the Environmental Science administrative committee.

## 3. Environmental Meanings and Values

 elective ( 3 credits): Take one course from GEO 475 , PHIL 230, or any new or topic course approved by the chair of the Environmental Science administrative committee.4. Environmental Science electives (14 credits): Take a minimum of 14 credit hours from BIO 350, BIO 440, CHEM 221, CHEM 222, CHEM 230, ENVS 340, GEO 385 (when an environmental field study), GEO 415, MET 240,

MET 440, or any new or topic course approved by the chair of the Environmental Science administrative committee. These must include at least one course with substantial laboratory experience, one course with substantial field experience, and at least 11 hours at a level of 300 or higher.
5. Capstone Experience (2 credits): Accumulate two credit hours from ENVS 381, ENVS 386 ENVS 495, ENVS 499. Each can be repeated for credit.

Complementary Major. A student with a first major that is not an interdisciplinary major is eligible to take the Environmental Science complementary major. A minimum of 32 credit hours must be taken according to the following requirements and in accordance with the Restrictions for Interdisciplinary Majors from the Interdisciplinary Programs section of this catalog (see page 232).

1. Environmental Science Core (14 credits): BIO 250 or GEO 260, plus a minimum of 11 credits from BIO 171, BIO 172, CHEM 121, CHEM 122, GEO 104, GEO 215, PSY 201.
2. Environment and Society elective (3 credits): Take one course from GEO 321, ECON 210 , PSY 355 , or any new or topic course approved by the chair of the Environmental Science administrative committee.
3. Environmental Meanings and Values elective ( 3 credits): Take one course from GEO 475, . PHIL 230, or any new or topic course approved by the chair of the Environmental Science administrative committee.
4. Environmental Science electives ( 10 credits): Take a minimum of 10 credit hours from BIO 350, BIO 440, CHEM 221, CHEM 222, CHEM 230, ENVS 340, GEO 385 (when an environmental field study), GEO 415, MET 240, MET 440, or any new or topic course approved by the chair of the Environmental Science administrative committee. These must include at least 7 credit hours at a level of 300 or higher.
5. Capstone Experience (2 credits):

Accumulate two credit hours from ENVS 381, ENVS 386 ENVS 495, ENVS 499. Each can be repeated for credit.

Minor Requirements. The Environmental Studies minor is described in the Interdisciplinary Programs section, page 233.

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. Offered on demand.

## ENVS 381. Cooperative Education in Environmental Science.

Cr. 1-2. Experience in environmental research or management with a cooperating employer. Midterm and final written reports required. 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 report 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 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 faculty sponsor.

ENVS 499. Colloquium on Environmental Science and Management.
Cr. 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. S/U grade only. May be repeated for credit.


Photo courtesy of William Liu, '12

# Foreign Languages and Literatures 

Professors S. DeMaris, Duvick (Chair); Associate Professors Ames, Bjornstad, HoultSaros, Malchow, Miguel-Pueyo, Tomasik, Zamora-Breckenridge; Assistant Professors Farmer, Kavanagh, Ridgway; Lecturers Berrier, Degner Riveros, Meng; Visiting Assistant Professor Benson.

To study a foreign language is to see the world through the eyes of another culture. In our increasingly global community, knowledge of a foreign language and awareness of transcultural issues are crucial for all citizens of the world. Foreign language study is thus an important facet of any area of university study. The Department of Foreign Languages and Literatures offers a diverse range of courses that not only teach students to express themselves in another language but also allow them to explore other literary and cultural traditions, both past and present. By immersing themselves in these other traditions, students gain insight into their own language and culture while deepening their understanding of what it means to be human, a central concern of the liberal arts.

The Department provides students with linguistic and cultural skills that can be effectively applied in their chosen professions, as well. A major or minor in a foreign language prepares students for success in a variety of careers ranging from international business, education, law, and government service to social work, the ministry, translation, and medical professions.

Learning Objectives. Students pursuing study in foreign languages and literatures will work toward the following objectives:

1. Students will attain a high level of language proficiency. In the modern languages, this proficiency includes reading, writing, listening, and speaking; in the classical languages, reading and writing.
Reading: Students will comprehend and interpret a variety of texts.
Writing: Students will write clearly and effectively in a variety of genres (e.g., narrative and persuasive essays, personal and business correspondence, and literary analysis).
Listening and Speaking: Students will communicate effectively with native speakers in both formal and informal verbal contexts.
2. Students will recognize important authors and literary movements and will analyze and appreciate key literary texts, thereby becoming critical readers of literature.
3. Students will demonstrate knowledge of and appreciation for the relevant culture, both past and present.
Foreign Languages Across the University.
In addition to language majors and minors, the
University offers a variety of programs that
incorporate the study of a foreign language:
Certificate in Business Spanish
Chinese and Japanese Studies
International Business
International Economics and Cultural Affairs
International Service
Modern European Studies
Pre-Seminary Program
Secondary Education
Valparaiso International Engineering Program (VIEP) in Chinese, French, German, or Spanish
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 18-25 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 place directly into level 103 (Spanish for High Beginners) may enroll in FLS 203 upon successful completion of 103. They will have fulfilled their Valparaiso University foreign language requirement upon successful completion of FLS 203 (not 103).

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 Requirement 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.

Valparaiso University International Engineering Program (VIEP in China). Engineering students who wish to enhance their program with Chinese language study, study abroad, and an overseas cooperative education placement should see page 208 for details about the VIEP in China program.

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 100-101.

## 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 either CLC 310 or CLC 311 and CLC 411 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 pages 19 and 25 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 Requirements.

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 55.

CLC 498. Honors Candidacy in Classical Civilization. Cr. 3. See Honors Work, page 55.

## French

Major. A minimum of 27 credit hours in French beyond FLF 203 constitutes a major. Courses must include FLF 204, 220, 351, 352, 353, and 493.

Minor. A minimum of 14 credit hours beyond FLF 203 constitutes a minor. Courses must include FLF 204 and 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 French in elementary, middle, or secondary schools with a major or minor in French should consult their departmental advisor and the Education Department for specific requirements.

Valparaiso University International Engineering Program (VIEP-French).
Engineering students who wish to enhance their program with French language study, study abroad, and an overseas cooperative education placement should see page 208 for details about the VIEP-French program.

The Roger and Hazel Guillaumant Award. See page 30 for details.

## The Patterson MacLean Friedrich

Scholarship. See page 30 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).
La Rochelle International Business School (available spring semester).
See pages 22-23 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 100-101.

## 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 Literature component of the Humanities General Education Requirement.

## 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.

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 230. Contemporary France.

Cr . 3. An introduction to contemporary French culture and society, focusing on current institutions, issues, and events. 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 271. French Drama Practicum.

Cr. 1-3. Rehearsal and performance of a play or excerpts of a play in French. No prior acting experience required. Prerequisite: FLF 203. May be used to fulfill the Humanities: Fine and Performing Arts component of the General Education Requirements.

FLF 290. Topics 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 204.

FLF 301. Advanced Oral Expression.
Cr. 3. 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. 3. Development of advanced writing skills in French. Using a variety of source materials including film, fiction, and nonfiction 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. 3. This course develops advanced language skills and cultural knowledge through work with contemporary French-language media, including newspapers, magazines, television, cinema, and the internet. 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 351. French Texts and Society: From Feudalism to Humanism.
Cr. 3. An interdisciplinary survey of French literature and cultural history from the Middle Ages through the Renaissance. Culturally significant texts (literary, historical, philosophical, and artistic) are examined within the context of medieval and early modern French society. Prerequisite: FLF 220.

FLF 352. French Texts and Society: From Absolutism to Revolution.
Cr. 3. An interdisciplinary survey of French literature and cultural history from the Classical Age through the end of the Ancien Régime. Culturally significant texts (literary, historical, philosophical, and artistic) are examined within the context of classicism and enlightenment in prerevolutionary French society. Prerequisite: FLF 220.

## FLF 353. French Texts and Society: From

 Romanticism to the Fifth Republic. Cr. 3. An interdisciplinary survey of French literature and cultural history from the Napoleonic era to present. Culturally significant texts (literary, historical, philosophical, and artistic) are examined within the context of French society of the last two centuries. 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. $\mathrm{Cr} .0 .5-3$. 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 55.
FLF 498. Honors Candidacy in French. Cr. 3. See Honors Work, page 55.

## German

Major. A minimum of 27 credit hours in German beyond FLGR 203 constitutes a major. Courses must include FLGR 204, 220, 351, 352, 353, and 493.

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 elementary, middle, or 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-German).
Engineering students who wish to enhance their program with German language study, study abroad, and an overseas cooperative education placement should see page 208 for details about the VIEP-German program.

## Study Abroad Opportunities:

Reutlingen Program (available fall or spring semester);
Rottenburg am Neckar (available spring semester only);
Tübingen Program (available full year only).
See page 24 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 100-101.

## 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 Requirements.

## 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.
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 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. Fulfills the Literature component of the Humanities General Education Requirement. Prerequisite: FLGR 204.

## 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 except from a play in German. No prior acting
experience required. Prerequisite: FLGR 204. May be repeated for additional credit. May be used to fulfill the Fine and Performing Arts component of the Humanities General Education Requirement.

## FLGR 272. Advanced German Grammar Topics.

Cr . 1. Targeted review and practice of grammar structures in German. May be repeated for elective credit if the topic varies, but counted toward a major or minor in German only once. Prerequisite: concurrent registration in a German course above 204 or consent of the Chair of the Department.

## FLGR 305. German in the Professions.

Cr. 3. A study of the German language as used in the world of business and technology, including basic commercial and technical vocabulary, workplace correspondence, and professional presentation. Advanced communication skills are developed. Prerequisite: FLGR 204.

## FLGR 306. German in the Media.

Cr. 3. A study of German language and contemporary society through the media, including newspapers, magazines, radio, television, film, and the internet. Advanced communication skills are developed. Prerequisite: FLGR 204.

## 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 351. German Studies: The Middle Ages and Humanism.
Cr. 3. A study of German-language literature and culture from the emergence of the Holy Roman Empire of the German Nation to Luther and the early modern era. Intellectual and aesthetic works (e.g., architecture, art, drama, music, philosophy, poetry, prose fiction) are examined in culturalhistorical context. Prerequisite: FLGR 220.

FLGR 352. German Studies: Enlightenment and Revolution.
Cr. 3. A study of German-language literature and culture from the beginnings of the modern era to the failed revolution of 1848. Intellectual and aesthetic works (e.g., architecture, art, drama, music, philosophy, poetry, prose fiction) are examined in cultural-historical context. Prerequisite: FLGR 220.

FLGR 353. German Studies: Constructing a Modern Nation.
Cr. 3. A study of German-language literature and culture from the emergence of the first unified German nation-state in the nineteenth century to the present. Intellectual and aesthetic works (e.g., architecture, art, drama, music, philosophy, poetry, prose fiction) are examined in culturalhistorical context. 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. Prerequisite: one course from the following: FLGR 351, 352, 353.

FLGR 481. Cooperative Education in German I. $\mathrm{Cr} .0 .5-3$. 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 55.FLGR 498. Honors Candidacy in German. Cr. 3. See Honors Work, page 55.

## 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 100-101.

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 55.
FLGK 498. Honors Candidacy in Greek.
Cr. 3. See Honors Work, page 55.

## 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 100-101.

## 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 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);

See page 21 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 100-101.

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 and Performing Arts component of the Humanities General Education Requirement.

## 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 100-101.

## 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 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 FLF 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 55.
FLL 498. Honors Candidacy in Latin. Cr. 3. See Honors Work, page 55.

## 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.

Valparaiso International Engineering Program (VIEP-Spanish). Engineering students who wish to enhance their program with Spanish language study, study abroad, and an overseas cooperative education placement should see page 208 for details about the VIEPSpanish program.

## Study Abroad Opportunities:

Granada, Spain (available fall semester or for the full year but not for the spring semester);

Zaragoza, Spain (available fall, spring, or full year); Puebla, Mexico (available fall, spring, or full year); Viña del Mar, Chile (available fall, spring, or full year).
See pages 20 and 23 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 100-101.

FLS 102. Second Semester Spanish.
Cr. 4. A continuation of FLS 101. Prerequisite: FLS 101 or equivalent.

## FLS 103. Spanish for High Beginners.

Cr. 4. This course is designed to review and expand students' knowledge of Spanish in order to bring them to the intermediate level. Emphasis is placed on improving language skills and developing vocabulary and familiarity with the Hispanic world. The course is meant for students with some background in the language whose Spanish Placement Exam score indicates that they are not yet ready for FLS 102. Prerequisite: appropriate score on placement exam.

## FLS 200. Hispanic Literary Studies.

Cr. 3. Study of selected works of Spanishlanguage 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 103 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 SpanishAmerican history and culture. Lectures and individual oral participation in Spanish. Prerequisite: one of FLS 204, 220, or 230.

FLS 303. Advanced Communication in Spanish. Cr. 3. Students work toward mastery of the more difficult aspects of Spanish grammar. Intensive practice in oral and written expression provides the opportunity to advance students' abilities to communicate effectively in a variety of personal and professional settings. Prerequisite: FLS 220, 230 , or 231.

## FLS 306. Contemporary Hispanic Society through Communications.

Cr. 3. 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 308. Spanish for Service Professionals.

Cr . 3. Designed for students intending to use Spanish in the service professions (medicine, social work, education, church work, etc.). Students learn discipline-related vocabulary, expand content knowledge in relevant service fields, and polish their Spanish-language skills. Prerequisite: 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 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 FLF 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 55.

## FLS 498. Honors Candidacy in Spanish.

Cr. 3. See Honors Work, page 55.

# Geography and Meteorology 

Professor Janke; Associate Professors Bals-Elsholz, Kilpinen, Longan, Wolf (Chair); Assistant Professors C. Clark, Ganesh Babu, Goebbert.

## Geography

Geography studies the Earth and its diverse people and environments. It seeks to understand how humans perceive and transform places and landscapes around the world. Geographers also explore and analyze the spatial organization of natural and social phenomena by creating and using maps with computerized geographic information systems (GIS). Geography students learn to integrate knowledge from the natural sciences, social sciences, and humanities in order to understand humanity's relationship with the Earth. Geography uniquely combines a strong liberal arts education with marketable professional skills.

The 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, urban planning, geospatial technology, cartography, location planning, real estate, tourism, marketing, demography, natural disaster preparation and recovery, international business, emergency management, social studies education, or earth science education to name just a few areas. Combining geography with a second major or pursuing graduate study in geography can enhance a student's opportunities. Geography majors also pursue graduate study in other areas including urban planning, architecture, landscape architecture, environmental science, resource management, climatology, oceanography, geology, archaeology, anthropology, law, or medicine.

The Geography major at Valparaiso University emphasizes practical experience through field trips, field courses, internships, and opportunities to work with faculty on original research. Students taking physical geography courses regularly visit the nearby Indiana Dunes National Park to learn about dune formation and biodiversity. Students studying urban geography and planning take a short train ride into Chicago to experience the dynamism of the downtown Loop and to observe everyday life in its diverse neighborhoods. In field courses, students use the environment as their classroom; learning
about glacial processes while hiking on a glacier in Alaska or about natural hazards by visiting volcanoes in Hawaii. Most geography students complete a paid or unpaid internship with national parks, urban planning agencies, Indian reservations, environmental organization, non-profit organizations, and businesses. Many geography students also complete one of Valparaiso University's study abroad programs or the Chicago Urban Studies program. Motivated students may arrange to work with a faculty member on original research problems or work as a lab assistant for physical geography and GIS courses.

Outside the classroom, students share their love for geography through the Geography Club, which organizes professional and social activities, weekend field excursions, and guest speakers. Students who distinguish themselves by high scholarship may be elected to membership in Gamma Theta Upsilon, the international geography honor society. The Alpha Xi Chapter of Gamma Theta Upsilon was installed at Valparaiso University in 1950.

The geography program at Valparaiso University has access to state-of-the-art facilities including the F.P. Kallay Geographic Applications Laboratory, an extensive map library located in the Christopher Center, and media-equipped classrooms in KallayChristopher Hall.

Geography Major. The Department offers two majors in geography.

1) Bachelor of Arts Degree in Geography.

A minimum of 30 credit hours in geography chosen by the student in consultation with his or her advisor constitutes a major. Two 100level, 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.
2) Bachelor of Science Degree in Geography.

A minimum of 36 credit hours is required for the major and must include the Environmental Core ( 21 credit hours), the Geographic Tools ( 6 credit hours), the Professional Experience ( 3 credit hours), and Electives ( 6 credit hours)
listed below. Students must also complete MATH 131. Students opting for a science minor or second major to complete this B.S. degree must select a program from outside the Department of Geography and Meteorology.

## Environmental Core

Complete all of the following courses:
GEO 104 Introduction to Geomorphology . . . . . . 4 cr.
GEO 215 Introduction to GIS. . . . . . . . . . . . . . . . . . . 3 cr.
GEO 365 Biogeography. . . . . . . . . . . . . . . . . . . . . . 3 cr.
GEO 404 Advanced Geomorphology . . . . . . . . . . . 4 cr.
MET 103 Introduction to Meteorology . . . . . . . . . . 4 cr.
MET 215 Climatology . . . . . . . . . . . . . . . . . . . . . . . 3 cr.
Total...................... . . . . . . . . . . . . . 21 cr.
Geographic Tools
Complete two of the following courses:
GEO 225 Cartography. . . . . . . . . . . . . . . . . . . . . . . 3 cr.
GEO 230 Introduction to Remote Sensing . . . . . . . 3 cr.
GEO 415 Advanced Geographic Information
Systems . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 cr.
GEO 430 Advanced Remote Sensing . . . . . . . . . . . 3 cr.
GEO 460 Data Analysis. . . . . . . . . . . . . . . . . . . . . . . 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.
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 cr.

## Electives

Complete two of the following courses:
GEO 101 World Human Geography. . . . . . . . . . . . . 3 cr.
GEO 204 National Parks . . . . . . . . . . . . . . . . . . . . . 3 cr.
GEO 260 Environmental Conservation . . . . . . . . . 3 cr.
GEO 285 Natural Hazards . . . . . . . . . . . . . . . . . . . 3 cr.
GEO 490 Selected Topics in Geography. . . . . . . 1-3 Cr.
GEO 495 Independent Study . . . . . . . . . . . . . . . . 1-4 cr.
MET 216 Introduction to Meteorological
Observation and Analysis . ................ . 3 cr.
MET 240 Introduction to Climate Change . . . . . . . 3 cr.
MET 319 Tropical Meteorology . . . . . . . . . . . . . . . 3 cr.
Any geology course through the VIGGA Program
at Indiana University Northwest. . . . . . . . . . 3 cr.
An additional Geographic Tools or Professional
Experience course . . . . . . . . . . . . . . . . . . . . . 3 cr.
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6 cr.
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.

Geographic Information Systems Minor.
A minimum of 15 credit hours is required for the geographic information systems minor and must include GEO (101 or 104), 215, 230, and 415, and three additional credits from GEO 225,285430 , or 486 . If selecting GEO 486, the internship must involve GIS, remote sensing, or cartography.

## 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 Kallay Laboratory is 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/>.

## 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 240). 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 meteorology graduates 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 VUTV studios 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 Bachelor of Science degree in meteorology and a Digital Media Minor through the Department of Communication (see page 78) from among the following courses:

COMM 198 Nonlinear Video Editing. . . . . . . . . . 3 Cr. COMM 250 The Radio Industry and Audio

Production . ............................... . 3 Cr.
COMM 251 Media Production . . . . . . . . . . . . . . . 3 Cr.
COMM 490 Topics: Weathercasting
At least one of:
COMM 380 Television Producing and
Directing.
. 3 Cr .
COMM 385 Advanced Media Production. 3 Cr .
COMM 490 Topics: Broadcast News . . . . . 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, dualpolarization Doppler radar and a radiosonde launcher became operational in 2008.

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, MATH 253, MATH 260 and MATH 270 . Students must maintain a minimum grade point average of 2.30 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 16 credits in meteorology constitutes a minor. This must include the following meteorology courses: MET 103, 215, and 216 and two additional courses from MET 240 or 440, 279, $319,350,430$, or 435.

## 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 1970, 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 $\ldots .$. (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. May be used to partially fulfill the Social Science component of the General Education requirements.

## 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 or to partially fulfill the Social Science 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 or to partially fulfill the Social Science 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. May be used to partially fulfill the Social Science component of the General Education requirements. 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 or to partially fulfill the Social Science component of the General Education requirements.

## GEO 280. Geography of Cyberspace.

Cr .3 . A course exploring the geographical dimensions of the Internet, media, and telecommunications. Includes consideration of urban telecommunication, online community, and virtual spaces. May be used to partially fulfill the Social Science component of the General Education requirements.

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 or may be used to partially fulfill the Social Science 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. May be used to partially fulfill the Social Science component of the General Education requirements. 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 wellbeing. Field trip. May be used to partially fulfill the Social Science component of the General Education requirements. Prerequisite: junior or senior standing.

## GEO 420. Rural Geography.

Cr. 3. This course examines the changing geography of rural areas. Topics include globalization and the transformation of rural economies, agriculture, rural environmental issues, tourism, rural cultures and identities, and the geography of country music. May be used to partially fulfill the Social Science component of the General Education requirements. 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.

May be used to partially fulfill the Social Science component of the General Education requirements.

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. May be used to partially fulfill the Social Science component of the General Education requirements. 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. Field trip. May be used to partially fulfill the Social Science component of the General Education requirements. Prerequisite: junior or senior standing.

## ENVIRONMENTAL AND GEOGRAPHIC INFORMATION SCIENCE COURSES

GEO 104. Introduction to Geomorphology.
$2+4, \mathrm{Cr} .4$. 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. Digital Cartography and GPS.

$2+2, \mathrm{Cr} .3$. An introduction to computerassisted mapping techniques for the effective communication of information. Design, layout, typography, color, symbolization, and statistical methods for mapping of geographic data will be discussed. Acquisition of location data using global positioning (GPS), and applied mapping techniques relevant for public health, engineering, business, environment, and society will also be introduced.

## GEO 230. Introduction to 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 fundamentals of light interaction with earth features, visual image interpretation, photogrammetry, environmental monitoring, change analysis, and introduction to digital image processing. 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 365. Biogeography.
Cr. 3. This course introduces students to an important interdisciplinary bridge between biology and geography. Biogeography is the study of inferring ecological and evolutionary relationships between living organisms and their physical environment from the analysis of their spatial and temporal distribution patterns. Students will learn to assess patterns of variation across physical gradients such as
latitude, climate, elevation, and isolation in relation to the distribution of plant and animal species on the earth. The course will also discuss human activities such as domestication, habitat alteration, species introduction and extinctions, and global environmental changes.

## 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.

$2+4$, Cr. 4. 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 forms through laboratory exercises and a required 4-day field trip. Prerequisite: GEO 104 and consent of the instructor.

## 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 430. Advanced Remote Sensing.

Cr. 3. This course focuses on advanced data processing methods for extracting earth information from satellite and air borne digital imagery. Students will also gain knowledge of the remote sensing process by conducting a semesterlong project on an approved research topic. Prerequisite: GEO 230 or consent of the instructor.

## GEO 460/560. Data Analysis.

Cr. 3. (Also offered as MET 460.) This course will examine the analysis methods used in the geosciences, with a focus on environmentally collected data sets. The course emphasizes visualization of data, as well as applications ranging from basic model building to regression and introductory time series analysis. The primary tool for analysis is R, an open source software package that runs on virtually any platform. Prerequisites: consent of instructor, or at least junior standing in Meteorology or Geography programs.

## 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 492 (formerly GEO 361). Research in Geography.
Cr. 1-3. Students working individually or as part of a research group conduct original research in geography under the direction of a faculty member. Students collect and analyze data and report their results in both writing and in an oral presentation. Open to all students regardless of class standing. S/U grade. Prerequisite: consent of the instructor.

## 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 55.

GEO 498. Honors Candidacy in Geography. Cr. 3. See Honors Work, page 55.

## METEOROLOGY

MET 103. Introduction to Meteorology.
$2+4, \mathrm{Cr} .4$. 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.

$2+2, \mathrm{Cr} .3$. 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 atmospheric structures, conceptual models and the basic techniques of meteorological analysis. Upper-air and surface observation codes, NCEP operational products, and atmospheric observing systems, including Doppler radar, wind profilers, satellites, and ASOS are discussed. Prerequisite: MET 103 and MATH 131.

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. Examines the historical development of severe storm research, forecasting and watch/ warning methodologies. Morphologies of supercell and multicell thunderstorms and tornadoes, as well as synoptic or mesoscale case studies are investigated. 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 291. Professional Perspectives.

Cr. 1. A seminar course aimed at preparing students for scholarships, internships and postgraduate life in atmospheric science. Career paths in atmospheric science will be explored. In preparation for graduate school or employment, students will create resumes, cover letters and personal essays. Interview techniques, professional expectations and concerns will be reviewed. Topics including professional ethics and responsibilities of scientists will be discussed. Prerequisite: MET 103.

MET 292. Lake Effect Snow Analysis and Forecasting. Cr . 1. This course examines the analysis and forecasting of lake effect snow. In addition to reading journal articles covering several aspects of lake effect snow, students explore case studies from each of the Great Lakes. The class format is a combination of student presentations, discussion, and lecture. Prerequisite: MET 103.

## 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.

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: Meteorology majors only, 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. Emphases are on the derivations and applications of the basic equations of motion, atmospheric thermodynamics, gradient and geostrophic flow, and the general circulation. Prerequisites: Meteorology majors only, 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; cyclone structure, jet streaks, and secondary thermal circulations. Laboratory case studies and exercises. Prerequisite: MET 372.
MET 385/585. Field Study in Meteorology. $0+4, \mathrm{Cr}$. 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. Examines the theoretical and operational principles of meteorological Doppler radar, including dual polarization methodologies. Atmospheric refractivity and its impact on wave propagation, data quality and algorithms are discussed. 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.

## MET 460/560. Data Analysis.

Cr. 3. (Also offered as GEO 460.) This course will examine the analysis methods used in the geosciences, with a focus on environmentally collected data sets. The course emphasizes visualization of data, as well as applications ranging from basic model building to regression and introductory time series analysis. The primary tool for analysis is $R$, an open source software package that runs on virtually any platform. Prerequisites: consent of instructor, or at least junior standing in Meteorology or Geography programs.

MET 480/580. Synoptic Scale Analysis and Forecasting. $3+2, \mathrm{Cr}$. 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. $3+2, \mathrm{Cr} .4$. A capstone course applying principles of atmospheric dynamics and thermodynamics to the processes that focus and organize mesoscale
weather systems. Topics include mechanically and thermally driven circulations such as landsea breezes, lake-effect snow, slop/valley flows, mountain waves, and polar lows. Atmospheric stability, convection theory, atmospheric discontinuities, severe convention, MCCs, and analysis and forecast methods are examined. 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 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 55.
MET 498. Honors Candidacy in Meteorology. Cr. 3. See Honors Work, page 55.

## History

Professors Austensen, Rittgers; Associate Professors Bloom, Ostoyich, Schaefer, Seguin (Chair); Assistant Professors Blacker-Hanson, Carter, Xia.

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 Fundamentals of 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, 300 and 493. Twelve hours of the major must be taken in courses numbered above 300 in addition to those listed; for these twelve hours the student must elect at least one course in each of the following fields:

1) History of the Americas, 2) European history, and 3) 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 above 300 , 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. Each class of majors is assigned to a member of the Department for advising. The Chair advises minors.

Note: Any 3-credit history course may be used to fulfill the Humanities: History component of the General Education Requirements. HIST 225, 232, 240, 250, 304, 329, $333,335,341,342,350$, and 355 may be used to fulfill the Cultural Diversity course component of the General Education Requirements.

## HIST 200. European History.

Cr. 3. A study of the social, intellectual, cultural, and political history of Europe from the Middle Ages to World War I.

HIST 210. The World in the Twentieth Century. Cr. 3. A survey of modern Western and nonWestern 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 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. Latin American History and Society.

Cr. 3. A survey of Latin American history from indigenous civilizations through the Spanish colonial period and modern national histories, with emphasis on enduring patterns in the region's cultures and societies. 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 300. 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 history majors. Prerequisites: HIST 200 and HIST 210.

## 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. Reformation Europe.

Cr. 3. (Also offered as THEO 329/529.) 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.

## 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 316/516. Blood and Iron: Imperial Germany, 1871-1918.
Cr. 3. A study of the political, social, and cultural development of Imperial Germany from its founding until its destruction during the First World War. The course considers the respective roles that personality (e.g., Bismarck and Kaiser Wilhelm II), class, and religion had in forging a path for the German nation-state.

## HIST 317/517. Hitler and the Third Reich.

Cr. 3. A study of the rise and reign of Adolf Hitler and National Socialism. The course analyzes the man and the movement within the larger social, economic, and political trends of nineteenthand twentieth-century Germany. The course is structured around a variety of historical debates (i.e., historical continuity versus discontinuity, Hitler as "weak" dictator or "strong" dictator, etc.). This course examines the racial, political, and
geopolitical aspects of National Socialism and provides extensive coverage of the Holocaust.

## 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 329/529. Revolution! Insurgence in Latin America. Cr. 3. Why is "social change" such a common notion, yet revolutions are so rare? This course draws upon interdisciplinary theories of
revolution and examines conditions and social forces that may lead to-or inhibit-revolution. Case studies include both "successful" revolutions and "failed" efforts, from Mexico to Cuba, Nicaragua to Argentina and beyond. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

HIST 333/533. Latin America in the Cold War Era. Cr . 3. This course examines the political and social implications of the Cold War throughout Latin America. Study will include the Guatemala coup, the Cuban Revolution, the military dictatorships of the 1970s-1980s, civil wars and revolution in Central America, and Mexico's "dirty war." May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

HIST 335/535. Modern Mexico: Competing Visions of the Nation.
Cr .3 . The primary focus of the course will be on consolidation of the nation state, including the nineteenth-century clash of Liberal and Conservative visions of modernity, the Revolution of 1910 and its aftermath, the emergence of civil society and the uprising in Chiapas in the 1990s. Students explore competing definitions of Mexican identity and their role in hindering or facilitating national unity. Emphasis is placed on the role of regionalism and popular activism. 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 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 Seminar.

Cr . 3. This course offers 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. May be repeated for credit if the topics are different. Prerequisite: HIST 300 and history major with junior or senior standing.

## 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 55.HIST 498. Honors Candidacy in History. Cr. 3. See Honors Work, page 55.

# International Economics and Cultural Affairs 

Administrative Committee: Professors Duvick (Foreign Languages and Literatures); Associate Professors Ames (Foreign Languages and Literatures, Chair), Bjornstad (Foreign Languages and Literatures), Kilpinen (Geography and Meteorology), Raman (Economics) ; Assistant Professors Atchison (Political Science and International Relations), Blacker-Hanson (History), Kavanagh (Foreign Languages and Literatures).

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 51 credit hours in courses approved by the Administrative Committee. Courses include a Foundational Course (taken as early as possible); Foreign Languages and Cultures, $17-22$ credits (requirements vary by language); Economics, 15 credit hours; and Political Science and International Relations, 6 credit hours. Students choose elective courses from the list below (number varies by regional focus). 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 55).

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.

Foundational Course ( 3 Cr .)
Choose one of the following:
GEO 102 Globalization . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
GLST 150 Global Perspectives . . . . . . . . . . . . . . . . 3 Cr.
Foreign Language and Culture (17-22 Cr.)
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.
HIST 240 Introduction to East Asian Culture ... 3 Cr.
One course from the following $\ldots \ldots \ldots \ldots \ldots$. . 3 Cr .
FLJ 200 Japanese Literary Studies
FLJ 250 Topics in Japanese Literature and the Fine Arts
EAST 390 Cultural Topics when approved by the program chair
EAST 395 Chinese Culture and Civilization
FRENCH
FLF 204 French Composition and
Conversation ............................. . . 4 Cr .
FLF 220 Approaches to French Literature ...... 3 Cr.
FLF 306 Contemporary French Language
and Communication . . . . . . . . . . . . . . . . . . . 3 Cr .
FLF 307 Professional French. . . . . . . . . . . . . . . . . . 3 Cr.
FLF 353 French Texts and Society: From Romanticism to the Fifth Republic ....... 3 Cr.

GERMAN
FLGR 204 German Composition and
Conversation . . . . . . . . . . . . . . . . . . . . . . . . 4 Cr.
FLGR 220 Approaches to German Studies ..... 3 Cr.
FLGR 306 German in the Media . . . . . . . . . . . . . . 3 Cr.
FLGR 305 German in the Professions . . . . . . . . . . 3 Cr.
FLGR 353 German Studies: Constructing a
Modern Nation. . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.

| JAPANESE |  |
| :---: | :---: |
| FLJ 101 Beginning Japanese I. |  |
| FLJ 102 Beginning Japanese II |  |
| FLJ 203 Intermediate Japanese |  |
| J 204 Inter |  |
| HIST 240 Introduction to East Asian Culture . . . 3 Cr. |  |

One course from the following ................ 3 Cr .
FLJ 200 Japanese Literary Studies
FLJ 250 Topics in Japanese Literature and the Fine Arts
EAST 390 Cultural Topics when approved by the program chair
EAST 395 Chinese Culture and Civilization

## 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 . . . . . . . . . . . . . . . 3 Cr.
FLS 307 Professional Spanish. . . . . . . . . . . . . . . . . 3 Cr.

## Economics (15 Cr.)

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.

## History (3 Cr.)

Take one course in the appropriate world region 3 Cr . Latin America
HIST 329 Revolution! Insurgence in Latin America
HIST 333 Latin America in the Cold War

## Europe

HIST 315 Contemporary Europe: Century of Violence
Asia
HIST 341 Revolution and Its Roots: The Making of Modern China
HIST 342 Tragedy and Triumph: The Making of Modern Japan

Political Science and International Relations ( 6 Cr .)
POLS 230 International Relations . . . . . . . . . . . . . 3 Cr.
POLS 330 Politics of Industrialized States OR
POLS 331 Politics of Developing States... 3 Cr.

## Electives (3 Cr.)

Take one course from the following list (no electives required for the Asia emphasis). Other classes may be used with the approval of the program chair.


GEO 301 Regional Geography. . . . . . . . . . . . . . . . 3 Cr.
HIST 250 African History and Society . . . . . . . . . 3 Cr.

HIST 304 European Imperialism and the Colonial Experience. . . . . . . . . . . . . . . . . . . 3 Cr.
HIST 313 History of Modern Britain ........... 3 Cr.
HIST 315 Contemporary Europe: Century of Violence. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
HIST 317 Hitler and the Third Reich ........... 3 Cr.
HIST 329 Revolution! Insurgence in Latin America. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
HIST 333 Latin America in the Cold War Era. . . 3 Cr.
HIST 335 Modern Mexico: Competing Visions of the Nation. . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
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.
HIST 350 Colonialism and Independence: Understanding Modern Africa . . . . . . . . . 3 Cr.
HIST 355 Modern Middle Eastern History . . . . . 3 Cr.
POLS 310 American Foreign Policy ............ . 3 Cr.
POLS 311 Model United Nations . . . . . . . . . . . . . 3 Cr.
POLS 312 Principles of Peace and Social Justice. 3 Cr .
POLS 330 Politics of Industrialized States . . . . . . 3 Cr .
POLS 331 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 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 55.
IECA 498. Honors Candidacy in International Economics and Cultural Affairs.
Cr. 3. See Honors Work, page 55.

## International Service

Administrative Committee: Associate Professors G. Evans (Biology), Hoult-Saros (Foreign Languages and Literatures); 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 333 Black Theology and Black Church3 Cr.
THEO 345 The Church in the World ..... 3 Cr.
THEO 346 Studies in Theology, Health, and Healing (Medical Missions or other approved topic) .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 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 Islamic Religion and Culture . . 3 Cr. THEO 363 Religions of China and Japan. . 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 $204 \ldots \ldots . \ldots$. . . . . . . 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 353 French Texts and Society: From
Romanticism to the Fifth Republic. . . . . . . . 4 Cr.
OR FLGR 353 German Studies:
Constructing a Modern Nation . . . . . . . . 3 Cr.
OR FLS 230 Spanish Civilization ......... 4 Cr.

## LATIN AMERICA

HIST 232 Latin American History and Society. . 3 Cr.
OR HIST 329 Revolution! Insurgence in
Latin America. . . . . . . . . . . . . . . . . . . . . . 3 Cr.
OR FLS 231 Spanish American Civilization4 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-International3 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 .......................
Reentry . . . . . . . . . . . . . . . . . . . . . . . . . . . . 0.5 Cr.
ISP 486 International Service-Learning Internship

1-3 Cr.
ISP 495 Senior Research Project. . . . . . . . . . . . . . . 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.

## 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 . 1. A course required of all senior majors in International Service, in which students develop a research proposal on a topic relation to international development, humanitarian aid, or human rights norms.

## ISP 495. Senior Research Project.

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.

## Kinesiology

Associate Professor Tyree (Chair); Assistant Professors Helm, Rolling; Visiting Instructor Holub; Adjunct Instructors Daugherty, Seibert.

The Department of Kinesiology 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.

The Department of Kinesiology provides comprehensive undergraduate degree programs that incorporate scientific and professional methods of inquiry to study physical activity, exercise, sports, and healthrelated issues; advances the body of knowledge through scholarly inquiry; and offers a widerange of fitness and sport activities that help promote lifelong well-being.

Physical Education Major. A minimum of 28 credit hours in KIN coursework constitutes a major. Courses must include KIN 150, 233, 240, $315,325,354,370,410$, and one of 343,387 or 440 , and either 473 or 486 . In addition, students must complete BIO 151, 152, and either BIO 205 or 260, and PSY 110/111.

Physical Education Teacher Education Major: P-12. Students who plan to teach in the elementary or secondary schools with a major or minor in Physical Education Teacher Education must also complete a complementary major in Secondary Education.

This teaching major requires a minimum of 53 credit hours. Courses must include KIN 150, $155,165,175,190,230,231,270,289,315,325$, 340, 360, 370, 388, 410, 489, and either KIN 191 or 192 , and either KIN 372,386 , or 440 .

Additional requirements for the major include PSY 110/111, BIO 151, BIO 152, and one of BIO 206, 260 or COMM 243. Students must also complete an application for formal admission into the Teacher Education program in the Education Department. See the Education Department's portion of the catalog (page 86) for more information on the complementary Secondary Education major. Education course requirements for Physical Education: Teacher Education majors include ED 203, 304, 306, 308, $350,351,357,450,451,452,459,460,470$, and SPED 440.

Exercise Science Major. A minimum of 32 credit hours in KIN coursework is required. Courses must include KIN 150, 220, 340, 370, $372,387,410,415,440,473$, and 477. In addition, students must complete BIO 151, BIO 152, CHEM 111 or CHEM 121, STAT 140 or PSY 201,
and either BIO 205 or BIO 260. This major also requires a minor in either Chemistry or Human Biology.

Sports Management Major. A minimum of 36 credit hours in KIN coursework is required. Courses must include KIN 150, 220, 233, $240,310,320,333,343,386,433,443$, and 486 ( 6 credit hours). In addition, students must complete COMM 265, and either the 18-credit Fundamentals of Business Minor or the 31-credit Business Administration Minor.

Physical Education Minor. A minimum of 18 credit hours in KIN coursework constitutes a minor. Courses must include KIN 150, 190, 230, and 370.

Coaching Education Minor. This minor requires a minimum of 17 credit hours. Courses must include KIN 190, 192, 220, 221, 310, 370, 387 and either BIO 205 or 260.

Exercise Science Minor. This minor requires a minimum of 15 credit hours in KIN coursework. Courses must include KIN 150, $220,370,387,440$, and 477. In addition, students must also complete BIO 205 or BIO 260.

Health and Safety Minor. This minor requires a minimum of 15 credit hours. Courses must include KIN 190, 230, 231, 388, BIO 205 or 260, and either KIN 191 or 192.

Sport Management Minor. Courses must include KIN 233, 333, 343, 433, 443, and either 240,310 or 320 . Completion of both ACC 205 and ECON 221 are also required.

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, Exercise Science, and Teacher Education majors are noted on a student's transcript as Physical Education: Sports Management, Physical Education: Exercise Science, and Physical Education: Teacher Education.

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 Kinesiology. All students must take one credit hour of KIN 100 Healthy Lifestyles. Anyone who has served in the Armed Forces for at least one year is exempted from this requirement, with the exception of National Guard members.

No more than four credit hours earned in KIN 102-149 may be counted toward any degree.

## KIN 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.

## KIN 102-149. 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 grade.

KIN 150. Foundations of Physical Education and Sport. Cr. 3. This course examines the history, philosophy, and principles of physical education as a profession and its relationship to modern education. This course is designed to provide the students with an enhanced knowledge of the field of physical education, including its growth and development, merging trends critical factors.

## KIN 155. Dance Patterns and Forms.

Cr. 2. A study of dance with emphasis on modern, folk, social and square dance forms as well as teaching techniques.

KIN 160. Advanced Lifesaving/Lifeguarding. $1+2, \mathrm{Cr}$. 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.

## KIN 165. Gymnastics.

$1+2, \mathrm{Cr}$. 2. This course consists of methods and teaching cues of apparatus and tumbling techniques. May meet three times a week.

## KIN 175. Experiential Education.

Cr . 2. This class will introduce students to experiential education. Experiential education is a philosophy and methodology in which educators purposefully engage with learners in direct experience and focused reflection. This course will incorporate cooperative learning, outdoor experiences and adventure education.

## KIN 190. First Aid and CPR.

Cr. 2. Seven weeks course. A study of the prevention and emergency care of sudden illness and injury. Completion of this course leads to American Red Cross Certification in Advanced First Aid Responding to Emergencies and Community CPR.

## KIN 191. First Aid Instructor Certification.

Cr. 1. This course is a continuation of KIN 190, First Aid and CPR, and is designed for students
who want to complete fundamental training to become first aid instructors.

## KIN 192. Sport First Aid.

Cr . 1. This course will provide an overview of basic principles of athletic training for those who aspire to be physical education teachers and coaches. This course will prepare students to provide basic health care to athletes.

## KIN 220. Coaching Theory.

Cr. 2. Seven week course. This course 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. Physical Education majors/minors given registration priority; approval of the Chair of the Department required for non-majors.

## KIN 221. Coaching Techniques.

Cr. 1. An in-depth study of a sport and the coaching techniques that lead to a successful program. Sports may include basketball, baseball, football, soccer, softball, swimming, tennis and volleyball. May be repeated for credit in a different sport.

## KIN 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.

## KIN 231. Substance Abuse and Health.

Cr. 3. A study of substance use and abuse in the United States. The course will examine the effects of alcohol, tobacco, and other drugs on the mental, physical, and social well being of the individual.

## KIN 232. Stress Management Module I.

Cr. 1. This course provides a basic understanding of stress and its physical, psychological, and social effects. Topics for Module I include: illness/disease; and intrapersonal, interpersonal, and perceptions intervention. Students may take up to three modules per class. Specific modules may not be repeated for credit.

## KIN 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.

## KIN 234. Stress Management Module II.

Cr . 1. This course provides a basic understanding of stress and its physical, psychological, and social effects. Topics for Module II include: the relationships between stress and change; self-evaluation; sources of stress; and current
coping skills for handling stress including spirituality, meditation, autogenic training, progressive muscle relaxation, and biofeedback. Students may take up to three modules per class. Specific modules cannot be repeated for credit. Prerequisite: KIN 232.

## KIN 236. Stress Management Module III.

Cr . 1. This course provides a basic understanding of stress and its physical, psychological, and social effects. Module II covers the following topics: physiological interventions; behavior; diversity; occupational stress; college stress; and family and the elderly stress. Students may take up to three modules per class. Specific modules cannot be repeated for credit. Prerequisite: KIN 234.

KIN 240. Governance in Sports and Physical Education. Cr . 3. This course is an examination of sport organizations focused on both professional and amateur governance structures and processes. The study of policy in educational, non-profit and professional sport venues will also be addressed.

## KIN 270. Teaching Swimming.

Cr . 2. A study of techniques for teaching swimming and basic lifesaving. This course leads to certification in one of the currently recognized training programs for swimming instructors.

## KIN 289. Methods of Teaching Elementary Physical

 Education.$2+2$. Cr. 3. Focuses on planning, teaching, and evaluating a developmental physical education program for elementary students. Includes lab experiences designed to enhance planning, management and teaching skills. Course is designed for physical education teacher education major. Prerequisite: sophomore standing.

## KIN 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).

## KIN 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. Physical Education majors/ minors given registration priority; approval of the Chair of the Department required for non-majors. Prerequisite: PSY 110.

## KIN 315. Teaching of Team Sports.

Cr . 3. This course will prepare students to teach a variety of team sports, including, but not restricted to football, soccer, baseball, softball, volleyball and basketball. Students will be
involved in teaching basic skills, drills, lead-up games, and game play. Rules, regulations, history and officiating will also be taught.

## KIN 320. Sport and Society.

Cr. 3. A study of the role of sports in society and the effects of culture and society on sports.

## KIN 325. Teaching of Individual and Dual Sports.

Cr . 3. This course will prepare students to teach a variety of dual and individual sports, including, but not restricted to golf, badminton, tennis, racquetball, and pickle ball. Students will be involved in teaching basic skills, drills, lead-up games, and game play. Rules, regulations, history and officiating will also be taught.

## KIN 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.
## KIN 340. Motor Learning.

$2+2, \mathrm{Cr} .3$. This course will expose students to the theoretical perspectives and current principles associated with the control and learning of movement skills. Specifically, the neural and mechanical mechanisms underlying motor behavior and the variables influencing motor learning will be addressed. The course will have applications to kinesiology, exercise science, adapted physical education, and both elementary and secondary physical education.

## KIN 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.

## KIN 354. Recreational Leadership.

Cr. 3. This course addresses the concepts of leisure, plan, and recreation, emphasizing the role leisure should play in modern society. Lectures and discussions on societal attitudes toward work and leisure stress the need to keep work and leisure in proper perspective. Students will concentrate on the psychological aspects of optimal experience and quality of life. Community leisure services will be addressed. Assignments will encourage students to explore leisure lifestyle attitudes. Prerequisite: PSY 110.

## KIN 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.

## KIN 370. Kinesiology I.

$2+2, \mathrm{Cr} .3$. The first of two courses focusing on the mechanics and anatomy of human movement
and their roles in promoting health and reducing disease. Kinesiology has direct applications to fitness and health, including developing exercise programs for people with and without disabilities, preserving the independence of older people, preventing disease due to trauma and neglect, and rehabilitating people after disease or injury. Prerequisite: BIO 151.

## KIN 372. Kinesiology II.

$2+2, \mathrm{Cr}$. 3. The second of two courses focusing on the mechanics and anatomy of human movement and their roles in promoting health and reducing disease. Prerequisite: KIN 370.

## KIN 386. Internship Seminar.

Cr . 1. This course provides an overview of internship policies and requirements, guidance through site selection and application process, and communication skills for the business/sport environment. Students learn how to select and arranged an internship opportunity, linking it to personal and professional career goals. Topics include letters of applications, resumes, interview preparation, and other career-related skills. S/U graded only. Prerequisite: junior standing.

KIN 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.

## KIN 388 (formerly PE 389). Methods of Teaching

 Health K-12.Cr. 3. An introduction to the content and methods of health education. The course will survey basic wellness issues such as nutrition, fitness, sexuality, drug abuse, and chronic and communicable disease prevention. The theory and practice of health education programs at the K-12 levels are discussed, including the use of a variety of methods and the development of relevant materials.

## KIN 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.

## KIN 415. Research Methods in Physical Education and Sport.

Cr. 3. An introduction to the theory and methods of historical, descriptive and experimental research in physical education and sport. Topics include the nature of research, interpretation of data and design of research. Recommended for juniors in exercise science and others considering graduate study. Prerequisites: junior standing and one of PSY 201, STAT 140, STAT 240, or IDS 205.

KIN 433. Sports Law and Sports Ethics.
Cr. 3. This course provides an extensive overview of legal principles and ethical issues in sports. Included will be a broad range issues related to sports law (such as antitrust exemption, labor law, and the athlete/agent relationship. The course concludes with a study of the role and application of ethics in decision-making processes. Prerequisite: Junior standing or chair's approval.

## KIN 440. Physiology of Exercise.

$2+2, \mathrm{Cr} .3$. An investigation of the physiological response of the human body to exercise and training, with laboratory experience. Prerequisite: BIO 152.

## KIN 443. Financial Aspects of Sport.

Cr . 3. This course provides the sports management student with information concerning the basic theories of finance and economics in areas of sports management. Included are forms of ownership, taxation, financial analysis, feasibility studies, licensing, and economic impact studies. Prerequisite: ECON 221 or ACC 205.

## KIN 473. Kinesiology 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.

## KIN 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: KIN 370, 387,440 , CHEM 111 or 121, or approval of the instructor.

KIN 486. Internship in Sport Management or Exercise Science.
Cr. 1-6. 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. Exercise science majors must complete a minimum of 3 internship credits; sports management majors must complete a minimum of 6 internship credits. This course may be repeated for a maximum of 12 credit hours. Prerequisites: junior standing, KIN 386, and approval of the instructor and the Chair of the Department.

KIN 489. Methods of Teaching Secondary Physical Education.
$2+2, \mathrm{Cr}$. 3. Focuses on planning, teaching, and evaluating a developmental physical education program for middle school and high school students. Includes lab experiences designed to enhance planning, management and teaching skills. Course is designed for physical education: teacher education major. Prerequisite: junior standing.

## KIN 490. Special Topics in Kinesiology.

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 kinesiology.

KIN 495. Independent Group Study.
Cr. 1-3. A personal investigation of a researchoriented concern pertaining to kinesiology.
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.

## KIN 497. Honors Work in Kinesiology.

Cr. 3. See Honors Work, page 55.
KIN 498. Honors Candidacy in Kinesiology.
Cr. 3. See Honors Work, page 55.


# Mathematics and Computer Science 

Professors Caristi, Gillman; Associate Professors Hume, Luther (Chair), Sullivan, Szaniszlo; Assistant Professors A. Capaldi, M. Capaldi, Desjarlais, Drube, Glass, Gong, Maxin, Pudwell; Instructor Kolba.

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 humanmachine 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 37 credit hours in mathematics constitutes a major. Students must complete the core and electives as specified below:

Core: MATH 131, 132, 264, 266, MATH 253 or STAT 240, MATH 199, 299, 399, and 499.

Electives: Two courses chosen from MATH 421, 451, 461; one course chosen from MATH 422, 452, 462; and three additional MATH or STAT courses of 3 credits or more numbered 270 or above.

Mathematics majors must complete CS 156 or 157 , and are also strongly encouraged to take CS 158.

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 31 credit hours in mathematics constitutes a complementary major. Students must complete the core and electives as specified below.

Core: MATH 131, 132, 264, 266, MATH 253 or STAT 240, MATH 199, 299, 399, 499.

Electives: MATH 421, 451, or 461, and three additional MATH or STAT courses of 3 credits of more numbered 270 or above.

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, as described in the catalog for the Actuarial Science major. See page 60 for a description of this major.

Secondary Education: STAT 240; MATH 421, 461, (462 or 422); MATH 312, 314, and one more course numbered 270 or above.

Statistics: STAT 240, 341, 342, 344; MATH 421, 422, (451 or 461).

Operations Research: STAT 240, 344; MATH 320, 322, 421, 422, 451.

Scientific Mathematics: MATH 253, 270; MATH 451, 452, 461; MATH 330, 334, 370.

Preparation for Mathematics in Graduate School: MATH 253; MATH 451, 452, 461, 462; MATH 334, 371.

Minors. A minimum of 15 credit hours in mathematics, including at least 7 credits numbered above 220, constitutes a minor in mathematics.

See page 232 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.

## MATHEMATICS COURSES

## 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 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. $\mathrm{S} / \mathrm{U}$ grade only.

## 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 onesemester 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. Usually offered every spring semester. Prerequisite: MATH 110, or placement higher than MATH 110 on the math placement examination.

## MATH 122. Applied Calculus.

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. The course may be used to fulfill the Quantitative Analysis component of the General Education Requirements. Currently listed only for transfer credit equivalence. Students with credit for MATH 131 may not receive credit for this course.

## 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, probability, counting methods, Markov chains, and game theory. 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. Calculus I.

3+2, Cr. 4. (See paragraph on Placement.) A first course in the calculus sequence. Topics include limits, continuity, differentiation, application of the derivative, The Intermediate Value Theorem, definite integrals and The Fundamental Theorem of Calculus, with transcendental functions throughout. May be used to fulfill the Quantitative Analysis component of the General Education Requirements. This course is not open to students with credit for MATH 122. Prerequisite: MATH 114, or placement of MATH 131 on the math placement examination.

## MATH 132. Calculus II.

$3+2, \mathrm{Cr}$. 4. A continuation of MATH 131. Topics include techniques of integration, applications of the definite integral, improper integrals, an introduction to differential equations, convergence of sequences and series, Taylor series, parametric equations, and polar coordinates. Prerequisite: MATH 131.

## MATH 199. Mathematics Colloquium I.

Cr. 0. Students attend and act as moderators for sessions of MATH 499, and begin participating in co-curricular mathematical activities, culminating in MATH 399. S/U grade only.

## MATH 211. Laboratory in Elementary Mathematics I.

 $0+1, \mathrm{Cr} .0$. 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. S/U grade only. Usually offered every fall semester. Prerequisite: concurrent registration in MATH 213.MATH 212. Laboratory in Elementary Mathematics II. $0+1, \mathrm{Cr} .1$. A continuation of MATH 211. Topics correspond to those in MATH 214. S/U grade only. Prerequisite: concurrent registration in MATH 214.

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. Usually offered every fall semester. 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. Usually offered every spring semester. Prerequisite: MATH 213.

## MATH 220. Discrete Mathematics.

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 a review of sets, relations, functions and matrices, logic, proof techniques including mathematical induction, counting techniques, difference equations, applications, and elementary analysis of iterative and recursive algorithms. Usually offered every spring semester. Prerequisite: MATH 131 (may be taken concurrently).

## MATH 253. Calculus III.

Cr. 4. A continuation of MATH 132. Topics
include conic sections, vector algebra, space curves, calculus of functions of several variables, multiple integration, calculus of vector fields. Prerequisite: MATH 132.

## MATH 260. Linear Systems and Matrices.

Cr. 1. Students will study properties of, and solutions to, linear equations and systems of linear equations. Related topics include matrices, properties of matrices, matrix algebra, determinants, eigenvalues, real vectors in two and three dimensions, vector algebra (including dot and cross products), linear combinations, and linear independence. This class is not open to students with credit for MATH 264. Prerequisite: MATH 114.

## MATH 264. Linear Algebra.

Cr. 3. A study of linear algebra and an introduction to mathematical reasoning. Topics include systems of linear equations, matrices, determinants, vectors in $n$-space, abstract vector spaces, and linear transformations. Usually offered every fall semester. Prerequisite: MATH 132 or 220.

## MATH 266. Transitions in Mathematics.

Cr. 3. In this class, students prepare to become professional mathematicians. Major course components are 1) a study of common proof techniques using linear algebra and number theory as foundations, and 2) an introduction to current professional practices such as the use of mathematical typesetting software, the use of computational software, finding and reading mathematical literature, and a survey of current issues in mathematics. Usually offered every spring semester. Prerequisite: MATH 264.

## MATH 270. Ordinary Differential Equations.

Cr. 3. Study of linear differential equations of a single variable, and their solutions (graphical, exact, and numerical), applications of ordinary differential equations, Laplace transforms, introduction to systems of linear differential equations, use of eigenvalues and eigenvectors in solving such systems. Prerequisites: MATH 132, and either 260 or 264 . (The latter may be taken concurrently.)

## 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 only. 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. Only offered when there is sufficient demand. Prerequisite: consent of the instructor.

## MATH 299. Mathematics Colloquium II.

Cr .0 . Students are required to attend sessions of MATH 499, evaluate student presentations, and continue participating in co-curricular mathematical activities, culminating in MATH 399. Prerequisite: MATH 199.

## MATH 312. History of Mathematics.

Cr. 3. Students will study the development of mathematics, usually through a survey of mathematics from earliest times to the present. Special topics may be chosen according to the interest of the class. Usually offered in the fall semester of even numbered years.

## 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. Usually offered in the spring semester of even numbered years. Prerequisite: MATH 264.

## MATH 320/520. Dynamical Systems.

Cr. 3. Theory and applications of mathematical models of dynamical systems (discrete and continuous). Topics include linear and non-linear equations, linear and non-linear systems of equations, bifurcation, chaos and fractals. Offered in the fall semester of odd numbered years. Prerequisite: MATH 132.

## MATH 321/521. Mathematical Models of Infectious

 Disease.Cr. 3. (Also offered as BIO 321.) An application of mathematical methods such as differential equations and elementary matrix algebra to the study of infectious diseases, and analyze outbreaks and control methods (such as vaccinations). Usually offered online during the summer. Prerequisite: MATH 131 and one of STAT 140, STAT 240, IDS 205, CE 202, ECE 365, or PSY 201.

## MATH 322/522. Optimization.

Cr. 3. Theory of, 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. Usually offered in the fall semester of odd numbered years. Prerequisites: MATH 260 or 264.

## MATH 323/523. Game Theory.

Cr.3. An introduction to the fundamentals of game theory, including dominance, Nash equilibria, and evolutionary stable solutions. Students will explore various models of strategic games, and apply them to economics, biology, and other disciplines. Usually offered in the summer. Prerequisites: MATH 131 and one of STAT 140, STAT 240, IDS 205, CE 202, ECE 365, or PSY 201.

MATH 330/530. Partial Differential Equations.
Cr. 3. Theory of, and solution techniques for, partial differential equations of first and second order, including the heat equation and wave equation in rectangular, cylindrical, and spherical coordinates. Tools include Fourier series, Bessel Functions, Legendre Polynomials, and transform techniques. Usually offered in the spring semester of odd numbered years. Prerequisites: MATH 253 and 270.

## MATH 334/534. Complex Variables.

Cr. 3. A study of mathematics in the complex plane, including analytic functions, derivatives, power and Laurent series, integrals, residues, and conformal mapping, with applications to partial differential equations. Usually offered in the fall semester of even numbered years. Prerequisite: MATH 253.

## MATH 370/570. Numerical Analysis.

Cr. 3. Analysis and implementation numerical techniques such as polynomial interpolations, root finding, matrix solutions to systems of equations, numerical solutions to differential equations (the finite different method), and numerical integration, with an emphasis on theory and error analysis. Usually offered in the spring semester of even numbered years. Prerequisite: MATH 260 or 264

## MATH 371/571. Experimental Mathematics.

Cr. 3. A study of the role of computation and experimentation in mathematical proof. Students will learn to write code in a mathematical programming language (e.g. Maple), and then apply programming skills to a variety of mathematical problems. Topics include enumeration, continued fractions, high precision computing, and numerical integration, among others. Students will also study famous proofs that integrate computation in nontrivial ways, and the current state of automated theorem proving/automated proof-checking software. Usually offered in the spring semester of odd numbered years. Prerequisites: MATH 266 or consent of the instructor.

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. S/U grade only. Prerequisite: MATH 265 or approval of the Chair of the Department.

## MATH 399. Mathematics Colloquium III.

Cr . 1. Students are required to attend sessions of MATH 499, and participate in activities related to mathematics that take place outside of the classroom. Examples include attending a mathematics conference, participating in service learning opportunities, or taking the national Putnam exam. Potential activities are assigned points, and students must attain a certain
minimum number of points before the completion of this course to receive credit. A written activity report is required. S/U grade only. Prerequisite: MATH 299 and at least junior standing.

## MATH 421. Combinatorics I.

Cr . 3. Theory of combinatorics, including elementary counting techniques, the inclusionexclusion principle, Ramsey theory, and an introduction to graph theory. Additional topics are introduced according to the interests of the students. Usually offered every third semester. Prerequisite: MATH 266.

## MATH 422. Combinatorics II.

Cr. 3. A continuation of MATH 421. Topics include generating functions and recurrence relations, Polya's theorem, matchings and coverings, and other topics based on the interests of the students. Usually offered every third semester. Prerequisite: MATH 421 or consent of the instructor.

## MATH 451. Analysis I.

Cr. 3. Properties of real numbers, theory of continuity, differentiation and integration of realvalued functions of a real variable, sequences, series, and uniform convergence. Usually offered every third semester. Prerequisites: MATH 132 and 266.

## 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. Usually offered every third semester. Prerequisites: MATH 253 and 451.

## MATH 461. Abstract Algebra I.

Cr. 3. A course in the theory of mathematical structures, i.e. groups, rings, and fields, along with substructures, quotient structures, and homomorphisms. Usually offered every third semester. Prerequisite: MATH 266.

## 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. Usually offered every third semester. 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. Usually offered every spring semester.

MATH 490/590 (formerly MATH 491/591). Advanced Topics in Mathematics.
Cr. 1-3. An advanced course for mathematics majors, topics will vary according to faculty and student interest. Only offered when there is sufficient demand. Prerequisites will 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. S/U grade only. Prerequisite: consent of the Chair of the Department.

## 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 55.

MATH 498. Honors Candidacy in Mathematics. Cr. 3. See Honors Work, page 55.

MATH 499. Mathematics Colloquium IV. Cr. 1. Students explore, write about, and give presentations about a topic or topics chosen according to the interests of faculty and students. Guest speakers may be arranged in accordance with the topic or topics. Students design, implement, and run a regularly-scheduled departmental colloquium, to which all faculty and students are invited. Prerequisites: MATH 266 and 399.

## STATISTICS COURSES

## STAT 140. General Statistics.

Cr. 3. (See paragraph on placement.) A noncalculus-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: planning a study; exploring data; anticipating patterns; and statistical inference. This course may be used to fulfill the Quantitative Analysis component of the General Education Requirements. Currently listed only for transfer credit equivalence, or AP credit in statistics with a score of 4 or higher.

## STAT 240. Statistical Analysis.

Cr. 3. An introduction to probability and statistics for calculus-ready students. Topics include probability, empirical and theoretical frequency distributions, sampling, correlation and regression, testing hypotheses, and estimation of parameters, with an emphasis on illustrations and applications of these techniques. This course may be used to fulfill the Quantitative Analysis component of the General Education Requirements. This course is not open to students with credit for STAT 140, IDS 205, ECE 365, CE

202, or PSY 201. Prerequisites: MATH 114, or placement in MATH 131 on the math placement examination.

## STAT 340/540. 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. This course is not open to students who have completed IDS 340. Prerequisite: one of IDS 205, STAT 140, STAT 240, PSY 201, CE 202, or completion of (or concurrent enrollment in) ECE 365.

## STAT 341/541. Probability.

Cr. 4. A course in probability with some topics applicable to statistics. Topics include probability spaces, random variables, classical discrete and continuous probability distributions, multivariate probability distributions (with an introduction to multivariable calculus), and joint and conditional distributions. Usually offered every third semester. Prerequisite: MATH 132.

STAT 342/542. Mathematical Statistics.
Cr. 3. A continuation of STAT 341. Topics include Central Limit Theorem, covariance, moments, estimation, tests of hypotheses, and sampling theory. Usually offered every third semester. Prerequisite: STAT 341.

## STAT 343/543. Time Series Analysis.

Cr. 3. This course studies statistical modeling and forecasting of time series, which are observations made sequentially through time. Applications of time series discussed are selected from finance, economics, health sciences, meteorology, and many other fields. Students will participate in periodic computer lab sessions with the software R. Usually offered every spring semester. Prerequisite: one of STAT 340, ECON 270 or ECE 365.

STAT 344/544. 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. Usually offered ever third semester. Prerequisite: one of STAT 240, IDS 205, CE 202, or ECE 365.

## STAT 493/593. Seminar in Applied Statistics.

Cr. 3. An intensive study of selected topics, methods, techniques, and problems in applied statistics. Only offered when there is sufficient demand. Prerequisite: STAT 340, IDS 340, or ECON 270.

## Computer Science

Major. For the Bachelor of Arts degree, a minimum of 32 credit hours in Computer Science constitutes a major. Courses must include CS 157, 158, and 493. At least 12 of the 24 remaining credits must be from Computer Science courses numbered 300 or above, and the rest may come from courses numbered 200 or above. Majors must also complete the following mathematics courses: MATH 131, 220, and STAT 240.

For the Bachelor of Science degree, students must complete the above program, and, in addition, complete a minimum of 4 more credit hours selected from CS 240, CS 250, CS 325, CS 358, and CS 372.

Recommended Electives. A student planning to major in Computer Science should begin taking both Computer Science and Mathematics courses in the freshman year. Students interest in the following areas of study should consider recommended electives as follows:

Traditional Computer Science. Students planning to study Computer Science in graduate school should select electives from CS $225,230,245,250,330,335,365,372$, and MATH 264.

Software Development. Students interested in becoming professional software developers should select electives from CS 225, 230, 240, $245,250,260,330,335,340,358$, and 365.

Hardware. Students interested in hardware, as well as software, should select electives from CS $240,245,260,320,330,335$, ECE $222,322,424$, and 450 .

Minor. A Computer Science minor consists of a minimum of 15 credit hours in computer science. Courses must include CS 157 and 158, and at least 9 credits from CS course numbered 200 or above. In addition, the student must complete MATH 131.

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, and demonstration of how computing relates to other disciplines. Topics include algorithms and their analysis, human-machine interfaces, artificial intelligence, software engineering, modelling of data, and serial and parallel computation. Students will perform computational experiments in a laboratory environment. 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. 1-2. 7 weeks. 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. 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. This course is currently listed only for the purposes of transfer credit equivalence. Students cannot receive credit for more than one of CS 156, CS 157, and ECE 251.

## CS 157. Algorithms and Programming.

 $2+3, \mathrm{Cr}$. 3. A first course in problem solving through algorithm development and analysis, with an introduction to software design. Students design algorithms for the solution of elementary problems, and writes, documents, and debugs programs for the implementation of those algorithms. Students cannot receive credit for more than one of CS 156, CS 157, 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. A continuation of CS 157, with an emphasis on developing more skills in complex program development, data structures, and object orientation. Topics include stacks, queuesand linked lists. Students design and write intermediate-sized programs. Students cannot receive credit for both CS 158 and ECE 252. Prerequisite: CS 156, CS 157, or ECE 251.

CS 210. E-Commerce and E-Business Technology. Cr. 3. (Also offered as IDS 310.) An overview of potentials, policies, politics, possibilities, and pitfalls of electronic commerce (conducting business online) and electronic business (using information technology to manage the supplychain), including hardware and software applications required for both. Prerequisite: junior standing.

## CS 255. Programming Languages.

$3+1$, Cr. 2.7 weeks. A study of programming languages, and their differences and similarities. Topics include syntax, translation, execution, design, abstraction, activation, record stack, recursion, and different programming paradigms. Prerequisite: CS 158 or ECE 252.

## CS 230. Database Management Systems.

$3+1, \mathrm{Cr} .2 .7$ weeks. A study of relational and object-oriented database management systems, data modeling, and database design. Prerequisite: CS 157 or ECE 251.

CS 240. Assembly Language Programming.
2+2, Cr. 2.7 weeks. Fundamentals of the structure of digital computers and an introduction to assembly language programming. Topics include machine instructions, data representation, addressing techniques and program segmentation and linkage. Prerequisite: CS 158 or ECE 252 (may be taken concurrently).

## CS 245. C Programming.

$3+1$, Cr. 2.7 weeks. An introduction to the C programming language and the Unix operating system. Topics include syntax, dynamic memory allocation, concurrency, synchronization, pointers and addresses, Unix system calls, common mistakes unique to C. Prerequisite: CS 157, ECE 251, or consent of the instructor.

## CS 250. Object Oriented Programming.

$2+3, \mathrm{Cr}$. 3. A course on designing and building programs in an object oriented language. Students will learn the philosophy of object oriented programming and object oriented principles of software reuse and patterns. Prerequisite: CS 158 or ECE 252.

## CS 260. Mobile Computing.

2+2, Cr. 2.7 weeks. Experience creating applications in a mobile device environment such as Android, IOS, or Windows Mobile. Topics include the model, view, controller paradigm, user interaction, hardware device interaction, and common patterns of application behavior. Prerequisite: CS 157, ECE 251 , or consent of the instructor.

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. S/U grade only. Prerequisites: consent of Chair of the Department.

## 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. This course may be repeated for credit, provided that topics are different. Prerequisite: consent of the instructor.

## CS 320. Digital Logic Design.

$2.5+1.5, \mathrm{Cr}$ 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: MATH 131, either CS 157 or ECE 251, and one of STAT 140, 240, IDS 205, CE 202, or ECE 365.

## CS 330/530. Operating Systems.

$3+1$, Cr. 2.7 weeks. An introduction to the concepts of modern operating systems. Topics include processes, scheduling, synchronization, virtual memory, file systems, shells, and security. Lab topics include common operating system utilities and commands, as well as programming to use OS facilities. Prerequisite: CS 240 or 245.

CS 335/535. Networks.
$3+1, \mathrm{Cr} .2 .7$ weeks. An introduction to the concepts of computer networks, with an emphasis on Internet Protocol. Topics include the OSI layered model, network and transport layer protocols, design goals, and security. Lab topics include common network information and configuration utilities, as well as programming to use network facilities. Prerequisite: CS 157 or ECE 251.

## CS 340. Web Programming.

$3+1, \mathrm{Cr} .2 .7$ weeks. An introduction to web technology, covering a number of specific systems, such as html, php, SQL, javaScript, and XML. A laboratory component provides hands-on experience. Prerequisite: CS 157, ECE 251, or consent of the instructor.

## CS 345. Artificial Intelligence.

$3+1, \mathrm{Cr} .2 .7$ weeks. An introduction to the goals, concepts, and algorithms of artificial intelligence, including both modern techniques and techniques of historical interest. Topics include symbolic and numerical representations, as well as the algorithms for machine reasoning and machine learning. Lab topics include use and implementation of these techniques. Prerequisites: CS 158 or ECE 252, and one of MATH 131, STAT

140, 240, PSY 201, IDS 205, CE 202, or ECE 365.
CS 358/558. Software Design and Development. $3+2, \mathrm{Cr} .4$. 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 250.

CS 365. Interactive Computer Graphics.
Cr. 3. A study of the fundamentals of interactive computer graphics systems and software. Topics include the representation and algorithms for manipulating graphics, such as geometric transformations, projections, lighting, textures, and rasterizing. Students will use graphics programming paradigms, such as graphics pipelines and ray tracing. Prerequisites: CS 158 or ECE 252, and MATH 131.

## 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. Topics include the Chomsky hierarchy, several automata and language models, and demonstrations of uncomputable problems, and various design strategies. Prerequisites: either CS 158 or ECE 252, either MATH 220 or 131, and at least 10 credits in CS.

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. S/U grade only. May be repeated for additional credit. Prerequisite: at least 10 credits in CS or consent of the Chair of the Department.

## 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 490 (formerly CS 491). Advanced Topics in Computer Science.
Cr. 1-3. An advanced course for computer science majors. Topics will vary according to faculty and student interest. This course is only offered when there is sufficient demand. Prerequisite: consent of the instructor.

## CS 492. Research in Computer Science.

Cr. 1-3. Students undertake a research problem in Computer Science under the direction of a faculty member. Written and oral reports are required. S/U grade only. Prerequisite: consent of the Chair
of the Department.
credits of CS courses numbered 200 or above.

## CS 493/593. Seminar in Professional Practices.

Cr. 2. Students and faculty discuss professionalism and ethical responsibilities in software development and human-computer interaction, and explore 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: junior standing and at least 12

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 55.
CS 498. Honors Candidacy in Computer Science.
Cr. 3. See Honors Work, page 55.


## Modern European Studies

Administrative Committee: Professor Duvick (Foreign Languages and Literatures); Associate Professor N. Corazzo (Art), Ostoyich (History, Chair).

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 Art3 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 353 French Texts and Society: From
Romanticism to the Fifth Republic.. . . . . . . 4 Cr.
FLGR 353 German Studies:
Constructing a Modern Nation . . . . . . . . . . . 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 200 are taught in translation and may be counted when the topic is appropriate. Topical courses numbered 290, 390 or 490 may be taken from participating departments when they focus on a European topic.

ART 102 Renaissance to Modern Art History . . 3 Cr.
ART 318 19th Century European Art . . . . . . . . . . 3 Cr.
ART 319 Early 20th Century European Art. . . . . 3 Cr.
ECON 236 Comparative Economic Systems . . . 3 Cr.
ENGL 450 British Literature of the 19th Century 3 Cr .
ENGL 456 The Novel . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
ENGL 460 Twentieth Century Drama . . . . . . . . . 3 Cr.
ENGL 470 Twentieth Century Fiction .......... 3 Cr.
ENGL 475 Twentieth Century Poetry. . . . . . . . . . 3 Cr.
FLF 352 French Texts and Society: From
Absolutism to Revolution. . . . . . . . . . . . . . . 3 Cr.
FLF 353 French Texts and Society: From Romanticism to the Fifth Republic. ...................... . 4 Cr.
FLGR 352 German Studies: Enlightenment and Revolution.

3 Cr .

FLGR 353 German Studies: Constructing a
Modern Nation
3 Cr .

FLS 230 Spanish Civilization . . . . . . . . . . . . . . . . . 3 Cr.
FLS 321 Spanish Literature. . . . . . . . . . . . . . . . . . . 3 Cr.
GEO 301 Regional Geography: Europe . . . . . . . . 3 Cr.
GEO 318 Field Study in European Geography (overseas program) ........................ . 3 Cr.
GS 390 Topics in English Life and Culture (overseas program)

3 Cr .
GS 390 Topics in German Life and Culture (overseas program)

3 Cr .
HIST 313 History of Modern Britain ........... 3 Cr.
HIST 351 Survey of English History and Culture (overseas program) . . . . . . . . . . . . . . . . . . . . 3 Cr.
HIST 352 Problems in Modern German History (overseas program) ........................ . 3 Cr.
HIST 492 Readings and Discussion Seminars (when the topic is appropriate) . 3 Cr .
PHIL 280 Early Modern Philosophy . . . . . . . . . . . 3 Cr.
POLS 230 International Relations . . . . . . . . . . . . . 3 Cr .
THTR 239 World Theatre and Drama II ........ 3 Cr.

MEUR 495. Independent Study.
Cr. 3. An independently supervised course that may be taken in any of the departments participating in the Program. Students are expected to produce a major paper involving at least two of the disciplines included in the Program and meet the course criteria established by the Administrative Committee. Before registering for the course, students must have the approval of the supervising professors and the Program Chair.

## Music

Professors C. Cock, Doebler, Ferguson, Friesen-Carper; Associate Professors Bognar (Chair), Brugh; Assistant Professor Grodrian, Maugans; Adjunct Assistant Professor J.C. Brown; Lecturer M. Cock.

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, church music or music industry. Study of music may also be combined with the Deaconess Program (see page 54). 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, instrumental and general 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; performance; 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 located online (http:/ /www. valpo.edu/music) 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-Musical Arts Option.
Music majors interested in emphasizing music performance, theory, and history may choose the Performance-Musical Arts Option. This Option requires completion of the 31-credit music core (see above) plus MUS 209 and MUS 264 or 463, one credit of MUS 404 or 495 , and at least 3 additional credits selected from MUS 210, 213, 285, and any other music courses offered at the 300 - or 400-level excluding studio lessons at these levels.

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 concentration combines the 31 credit music core (see above), 9 additional credits in music (MUS 285, 385, 485,486 ). It is recommended that Music majors pursing the Music Industry Option complete one of the following minors: Business Administration; Fundamentals of Business; Art (studio concentration); or Communication (Communication, Communication Law, or Digital Media).

## Bachelor of Music Education

The General Education and Professional Education Requirements for this degree are given on pages 47-48. Also required are PSY 110 and COMM 243. The music requirements are outlined below:

| Music Core |  |
| :---: | :---: |
| MUS 109, 110, 209, 210 Musicianship . . . . . . . . 8 Cr. |  |
| MUS 163, 164, 263, 264 Music Theory . . . . . . . 12 Cr . |  |
| MUS 201, 318, 319 History/Literature of Music. 8 Cr . |  |
| MUS 213 Basic Conducting . . . . . . . . . . . . . . . . 2 Cr. |  |
| MUS 313 Intermediate Conducting |  |
| Music Ensemble |  |
| MUS 499 Music Colloquium |  |
| Total | 38 Cr . |
| Music Education Core |  |
| Principal Instrument ${ }^{1}$ |  |
| Secondary Instrument ${ }^{2}$ |  |
| MUS 230, 231 Wind/Percussion, Stringed |  |
| Instructional Methods |  |
| MUS 239 Voice Instructional Methods . . . . . . . . 1 Cr . |  |
| MUS 312 Scoring and Arranging |  |
| MUS 389 School Music I |  |
| MUS 489 School Music II. . . . . . . . . . . . . . . . . . . . 3 C |  |
| Total credits . . . . . . . . . . . . . . . . . . . . . . . . 26 Cr |  |

## 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, 210 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

[^0]Other Requirements

| Program | Church Music |  |  |
| :--- | :---: | :---: | :---: |
|  | ORGAN | VOICE | COMP |
| 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 | $20^{4}$ | 8 | -- |
| Voice | 4 | $20^{4}$ | -- |
| Total credits | 40 | 40 | 28 |
| Elective credits | $\underline{4}$ | $\underline{4}$ | $\underline{7}$ |
| Total required | 136 | 136 | 128 |


| Program | Performance |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | ORGAN | PIANO | VOICE | INSTR |
|  | -- | 2 | -- | 2 |
| MUS 313 | -- | -- | 2 | 2 |
| MUS 220-223 | -- | -- | 3 | -- |
| MUS 404 | $1+2$ | $1+2$ | $1+2$ | $1+2$ |
| MUS 423 | 3 | 3 | -- | 3 |
| MUS 454 | -- | -- | 1 | -- |
| Piano | 4 | -- | 4 | -- |
| Principal | $20^{4}$ | $20^{4}$ | $20^{5}$ | $20^{4}$ |
| Instrument | 30 | 28 | 32 | 30 |
| Total | $\underline{7}$ | $\underline{7}$ | $\underline{2}$ | $\underline{5}$ |
| Elective credits | $\underline{5}$ | $\mathbf{1 2 8}$ | $\mathbf{1 2 8}$ | $\mathbf{1 2 8}$ |

Music Minor. A minimum of 18 credit hours in Music constitutes a minor. Courses must include MUS 109, 163, 164, and 201, four credit hours of studio instruction (completion of MUS 103), and four credit hours of ensemble music instruction (MUS 050, 052, or 054). Minors must meet all additional requirements set for them by this department as outlined in the Department Handbook for Music Students (see page 143).

[^1]
## 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.

$2+1, \mathrm{Cr}$. 2. A practical course in which basic musicianship is developed through sight-singing, dictation and guided listening. An introduction to jazz forms in 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 210 (formerly MUS 309). Musicianship IV. $2+1, \mathrm{Cr} .2$. An advanced course in ear-training, sight-singing and guided listening. Prerequisite: MUS 209.

## 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 230. Wind/Percussion Methods.

Cr. 3. Brass, woodwind, and percussion instruments are studied for the purpose of giving the student a fundamental playing and teaching competence in these instruments.

## 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 236. Guitar Instructional Methods.

 $0+2, \mathrm{Cr} .1$. 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 239. Voice Instructional Methods. $0+2, \mathrm{Cr} .1$. 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 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 318. 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 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.

## 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.

MUS 423. Pro-Seminar in the Pedagogy of Music. Cr. 3. 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: music major or music minor with at least junior standing or consent of the chair.

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 $20^{\text {th }}$ 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. (Also offered as THEO 456/556.) An intensive academic study of the history and practices of music and liturgy in Christian churches with an emphasis on the Lutheran heritage. Study includes both primary liturgical theology (participation in a variety of liturgical expressions), and secondary liturgical theory (reflection on liturgical forms and structure). Topics include theologies and practices of music, history of hymnody, and music in worship. Open to upper division music majors as well as upper division and graduate theology majors and minors; 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. May not be used to fulfill the upper-level Theology 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.

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 55.
MUS 498. Honors Candidacy in Music.
Cr. 3. See Honors Work, page 55.

## 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 266 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 | French Horn |
| (by audition only) | Trumpet |
| Violin | Trombone |
| Viola | Euphonium |
| Violoncello | Tuba |
| Contrabass | Percussion |
| Classical Guitar | Viola da gamba |

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: Valparaiso University Chorale, Kantorei, Concert Band, Jazz Ensemble, Symphony Orchestra, Luce Band, VU Men's Choir, VU Women's Choir. 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.

Valparaiso University Chorale, Kantorei, Men's and Women's choirs, admission by audition only.

## MUS 052,552. Bands.

Concert Band, Luce Band, Jazz Ensemble, admission by audition only. Also CommunityUniversity 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 Horn Ensemble, 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

Professor Visser, Associate Professors Geiman, Preston (Chair).

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, 375, 401, 425, and 450, one additional 200-level course, and two additional 300 -level courses. 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 145 and 150 will satisfy the Humanities: Philosophy General Education Requirement, but students will usually be best served by choosing a course at the 100 or 200 level. PHIL 145 and 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. Experience and Existence.

Cr. 3. A study of the fundamental philosophical questions that arise as we attempt to understand the world around us and our experience of it. Topics covered may include the nature of time, space and matter, the existence of God and of human souls, the nature of the human person and of consciousness, the reliability of senseperception and the possibility of knowledge, the compatibility of faith, reason and science, and so on.

PHIL 120. 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. The Good Life.

Cr. 3. An introduction to philosophical thought about the shape and substance of a good human life. What might such a life look like? Would it be a life of pleasure or of moral rectitude? A life of self-effacing service to others, or of selffulfillment? Possibly a life of religious devotion and union with the Divine? Is there one model that stands out as uniquely correct, or are there many equally good models - and what makes a model good in the first place? These and other similar questions may be covered.

## PHIL 130. Death and Immortality.

Cr. 3. A philosophical inquiry into questions surrounding death and the possibility of life after
death. What is death, and why does it exist? Is it good, bad, or neutral? Is the idea of an afterlife plausible? Are some models of the afterlife, such as resurrection or reincarnation, more plausible than others? Do "near-death experiences" give us evidence for the reality of an afterlife? These and similar questions may be covered.

PHIL 145. Elementary Logical 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. This course covers most of the same content as PHIL 150, but moves as a slightly slower pace in order to facilitate better learning for average math students. 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 a 1 on the Math placement exam. Not open to students with a 2 on the mathematics placement exam or with calculus credit. Not open to students with credit for PHIL 150.

PHIL 150. Formal 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. This course covers much of the same content as PHIL 145, but moves at a slightly faster pace. 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 a score of 2 or higher on the Math placement exam. Not open to students with credit from PHIL 145.

## PHIL 201. Forgiveness.

Cr. 3. A philosophical exploration of the concept of forgiveness. What is forgiveness? What is the proper object of forgiveness? Does understanding add anything to forgiveness? Are there unforgivable acts or unforgivable persons? When do we have an obligation to forgive? What is the connection between forgiveness and related concepts such as reconciliation, justice, and mercy? The focus of this course will be on interpersonal forgiveness, although we will have occasion to connect this with legal, political, and theological conceptions of forgiveness.

PHIL 205. Science and the Interpretation of Reality.
Cr. 3. A study of the philosophical questions surrounding science as a field of knowledge and as a cultural institution. What is science, and how do we distinguish between science and nonscience? Does science yield knowledge of reality, or does it merely generate plausible models
whose significance comes from their practical applications (technology)? Is scientific knowledge superior to non-scientific knowledge, and does science therefore deserve the place of authority that it has in Western (and, increasingly, global) culture? These and related issues may be covered. 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. Asian Philosophy.

Cr. 3. An introduction to major philosophical themes in Asian thought. Emphasis is placed upon the analysis of primary texts. 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: sophomore standing 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 with readings possibly to include Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant. Topics may include the nature of mind and body, human freedom, the nature of reality, and the extent and limitations of knowledge. Primary documents will be read throughout. Prerequisite: sophomore standing 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 131 or consent of the instructor.

## 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 131 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 a range of moral issues encountered in both clinical medicine and human experimentation. 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 131 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 401. Comprehensive Exam.

Cr. 1. The comprehensive exam is required of all philosophy majors in the fall of their senior year. The exam itself consists of a logic exam equivalent in difficulty to a final exam for PHIL 150, an essay in the history of philosophy, and an essay in philosophical topics (see the philosophy student handbook for more information). In addition to covering the administration of this exam, this course will be used to arrange tutorials to prepare students for the various sections of the exam. Prerequisites: philosophy major with senior standing.

## 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 55.
PHIL 498. Honors Candidacy in Philosophy.
Cr. 3. See Honors Work, page 55.

# Physics and Astronomy 

Professors Hrivnak, Manweiler, Stanislaus, Zygmunt (Chair); Associate Professors<br>Hillwig, G. Morris, Richter; Assistant Professor Gibson-Even; Visiting Assistant Professor Sterling.

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, atmospheric 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.valpo. edu/physics>.

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. There are four different options a
student may choose to pursue. All four options share 19 credit hours of required courses in common, thus making it easy for students to switch from one to another if their career objectives change.

## 1. Bachelor of Science Degree in Physics.

A minimum of 32 credit hours in physics and astronomy constitutes a major. Courses must include the core courses PHYS 141, 141L, 142, 142L, 243, 245, 246, 250, 281, 345, 360, 371, 445 (2 credits), and 499.

Two 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 concentration and the courses that apply within the department.

The Fundamental Physics Concentration is intended for students primarily interested in pursuing a career in physics and who intend to pursue graduate study in physics. In addition to the core courses, the following courses are recommended: PHYS 372, 381, 421, 422, 430, 430 L , and 440 . MATH 330 and 334 are also 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 Fundamentals of Business Minor (page 235).

## 2. Bachelor of Science Degree in Astronomy.

A minimum of 32 credit hours in physics and astronomy constitutes a major. Courses must include the core courses ASTR 101, 101L, 221, 252, 253, 445 ( 2 credits), and PHYS 141, 141L, $142,142 \mathrm{~L}, 243,245,246,250,360$, and 499. For students intending to pursue graduate study in astronomy or astrophysics, the following courses are recommended: PHYS 371, 381, and 421.

## 3. Bachelor of Science Degree in Physics and Astronomy Education.

A minimum of 32 credit hours in physics and astronomy constitutes a major. Courses must include the core courses ASTR 101, 101L, and PHYS 141, 141L, 142, 142L, 243, 245, 246, 250, 360, 445 (1 credit), 499 and either (PHYS 345 and 371) or (ASTR 221 and 252). In addition, students intending to meet licensure requirements for secondary education will complete NS 290, NS 490, and the required courses and professional field experience, including PHYS 489. A cumulative GPA of 2.50 is required for admission to the Professional Semester and to be eligible for recommendation for licensure. See the description of the secondary education program on page 86 for more details.

## 4. Bachelor of Arts Degree in Physics.

A minimum of 28 credit hours in physics and astronomy constitutes a major. These are the core courses PHYS 141, 141L, 142, 142L, 243, $245,246,250,281,345,360,371,445$ (2 credits), and 499.

One year of chemistry and the PHYS 490 capstone course are recommended for students in all four options. It is assumed that students will acquire competency in at least one computer programming language (FORTRAN, $\mathrm{C}, \mathrm{C}++$ ). Electives used to complete the minimum major requirements must be drawn from PHYS and ASTR courses at the 200-level and above, but cannot include more than 1 credit hour of PHYS/ ASTR 492.

Physics Minor. A minimum of 16 credit hours in physics and astronomy constitutes a minor. PHYS 141, 141L, 142,142L, 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. Completion of the degree requirements of the College of Arts and Sciences with a major in astronomy leads to the Bachelor of Science degree.

Credit by Examination. Credit for PHYS 111, $111 \mathrm{~L}, 112,112 \mathrm{~L}, 141,141 \mathrm{~L}, 142$, 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 or astronomy and all students planning to teach physics or astronomy must have their schedules approved by the department advisor.

## ASTRONOMY COURSES

## ASTR 101. Astronomy.

$3+0, \mathrm{Cr} .3$. 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.

$0+3, \mathrm{Cr}$. 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 Stellar Astrophysics.

 $3+0$, Cr. 3. A study of modern stellar astronomy and the physical principles involved. Topics to be studied include the properties of light, the interstellar medium, and the properties and evolution of stars. Quantitative problems illustrating the nature of modern astronomy will be assigned. 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 and PHYS 243.ASTR 253. Introduction to Galactic Astrophysics and Cosmology.
$3+0$, Cr. 3. A study of modern galactic astrophysics, cosmology and the physical principles involved in both. Topics to be studied include the Milky Way galaxy, the nature of galaxies, active galaxies, the structure of the universe, and cosmology. Quantitative problems illustrating the nature of modern astronomy will be assigned. This course along with ASTR 101L may be used to fulfill the Natural Science component of the General Education Requirements. Normally offered in the fall of even numbered years. Prerequisite or concurrent registration: MATH 131 and PHYS 243. ASTR 252 is normally taken prior to ASTR 253, but this is not a prerequisite.

## 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. No more than 1 credit hour of ASTR 492/PHYS 492 may be used to satisfy the minimum requirements for a physics or astronomy major.

## PHYSICS COURSES

## 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, and friction. Prerequisites: MATH 131 and PHYS 141 or 151.

## PHYS 111. Essentials of Physics.

$3+0, \mathrm{Cr}$. 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.

$3+0, \mathrm{Cr}$. 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. Newtonian Mechanics

$3+0$, Cr. 3. A study of classical mechanics, including static and dynamic systems, 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.

## PHYS 141L. Experimental Physics I.

$0+3, \mathrm{Cr} .1$. 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. $3+0, \mathrm{Cr}$. 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 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. Newtonian Mechanics - Honors.

$3+0$, Cr. 3. A study of classical mechanics, including static and dynamic systems, 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 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.

## 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 or ME 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.

## PHYS 243. Physics: Atoms and Nuclei.

Cr. 3. An introduction to the special theory of relativity, physics of the atom, the Schroedinger wave equation, physics of condensed matter, physics of the nucleus including radioactivity, and elementary particles. Prerequisites: PHYS 142 and MATH 132 (may be taken concurrently).

## PHYS 245. Experimental Physics III.

$0+3, \mathrm{Cr}$. 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. 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 and CHEM 115 or 121.

PHYS 281. Electricity and Electronics. $2.5+1.5, \mathrm{Cr}$. 3. (Also offered as ECE 281.) A study of the fundamental methods of electrical circuit analysis with emphasis on computeraided 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.

## 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 222 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 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.

## PHYS 342. Electronics.

3.5+1.5, Cr. 3. (Also offered as ECE 340.) 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 $C$.

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 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 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 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, multielectron 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.

$0+3, \mathrm{Cr}$. 1 . An advanced laboratory to study nuclear reactions, nuclear structure, radioactivity. Experiments may use the 300 keV particle accelerator and a neutron howitzer. Normally offered in the spring semester of even numbered years. Prerequisites: PHYS 246 and 345; corequisite: PHYS 430.

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, magnetic and optical properties, and superconductivity. Normally offered in the spring semester of odd numbered years. Prerequisites: PHYS 243.

## 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 and the astronomy 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. (Also offered as CHEM 490 and NS 490.) 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 or astronomy 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. No more than 1 credit hour of PHYS 492/ ASTR 492 may be used to satisfy the minimum requirements for a physics or astronomy major.

PHYS 497. Honors Work in Physics.
Cr. 3. See Honors Work, page 55.
PHYS 498. Honors Candidacy in Physics. Cr. 3. See Honors Work, page 55.

PHYS 499. Physics and Astronomy Colloquium. Cr. 0. All physics and astronomy majors are expected to register for this course. $S / U$ grade

## Political Science and International Relations

Professor Baas (Chair); Associate Professors Hora, Lin; Assistant Professors Atchison, G. Johnson; Adjunct Assistant Professor Old.

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 additional focus on scientific procedures, and empirical and quantitative methodology.

The study of politics and international relations has never been more important than today. More so than ever before, events that occur across the globe and in remote places around the world impact our daily lives. As a result of revolutionary technological change, relations within and between states are being reconfigured almost daily. The majors in Political Science and International Relations at Valparaiso University give students the background, experience, and analytical tools to make sense of, and prepare for dealing with this dynamic and rapidly changing world.

A major in political science may lead to careers in many fields 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, the Washington Semester, and the Semester on the United Nations see page 11.

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 organizations, 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 or working as paid associates and in the process learn basic research methods and gain practical experience in working for and dealing with government, business and other organizations.

Majors. The department offers two majors: one in Political Science and one in International Relations. Both majors include a minimum of 30 credit hours. Students majoring in Political Science can concentrate in three separate areas: general political science, legal studies, or public policy and public administration.

The following four courses, accounting for a total of 12 credits, are required of all majors in either Political Science or International Relations: POLS 120, 130, 240, and 493.

Political Science Major. Students selecting the Political Science Major can choose one of the following options:

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.

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, $327,345,386,400,401$, and 490 (when the topic is appropriate).

International Relations Major. Students selecting the International Relations Major take the required four courses (POLS 120, 130, 240,493 ) and POLS 230. They then make the following selections:

International Relations Courses ( 9 credits). Take at least three of the following: POLS 310, $311,312,313,380,409,410,411$, and 386 when appropriate.

Comparative and Area Studies ( 6 credits). Take at least two of the following courses (At least one must be from a specific geographic area.): POLS 330, 331, 332, 333, 334, 336, 400,

401, and 386 when appropriate.
Minor. A minimum of 18 credit hours in political science or international relations constitutes a minor. There are four options for obtaining a minor.

General Political Science. The following courses are required for this minor: POLS 120 and 130, and at least 12 additional credit hours.

International Relations. The following courses are required for this minor: POLS 120, 130, 230, at least two courses from the International Relations group, and one course from the Comparative and Area Study group listed above.

Legal Studies. The following courses are required for this minor: 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. The following courses are required for this minor: POLS 120, 360, 361, and 9 additional credit hours from the following: POLS 220, 260, 270, $326,327,345,400$, and 401.

Degree. Completion of the degree requirements of the College of Arts and Sciences with a major in Political Science or in International Relations leads to the Bachelor of Arts degree.

Credit by Examination. Credit for POLS 120 and 130 may be earned through the College Level Examination Program subject examination.

Approval of Schedules. Students taking a major or minor in political science or international relations 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 nonWestern 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 of the Department.

## POLS 230. International Relations.

Cr. 3. An examination of 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 computeraided analysis of survey data.

## POLS 310/510. American Foreign Policy.

Cr. 3. The various internal and external factors that influence the formulation and execution of U.S. foreign policy are examined. The course will also cover the substance of foreign policy, as well as the major international problems facing the United States today. Prerequisite: POLS 130, 230, or consent of the Chair of the Department.

## POLS 311/511. Model United Nations.

Cr. 3. This course provides an orientation to the operations of the United Nations, including current events, pressing international issues, the basics of international law, and some of the protocol and procedures of international diplomacy. The course will assist students
in preparing for their roles as distinguished diplomats at one of the Model United Nations conferences held in Indiana or Illinois (attendance required). Prerequisite: POLS 130, 230, or consent of the Chair of the Department.

## POLS 312/512. Principles of Peace and Social Justice.

Cr. 3. (Also offered as PSJ 201.) 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.

## POLS 313/513. Study Abroad Field Research.

Cr .3 . Students participating in Valparaiso University-sponsored study abroad programs can receive additional credit by doing research and writing a paper utilizing the resources available in the areas where they are located. All research must be approved in advance by the Chair of the Department.

## 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. Prerequisite: POLS 120 or consent of the Chair of the Department.

## 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. Prerequisite: 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.

POLS 330/530. Politics of Industrialized States.
Cr. 3. A study of political systems in the industrialized world. Attention is directed
primarily at Western and Eastern Europe, but focuses on other industrialized countries as well. Prerequisite: POLS 130 or consent of the Chair of the Department.

## POLS 331/531. Politics of Developing States.

Cr. 3. A study of governments and political problems within and across developing states found in Eastern Europe, the Middle East, Central and East Asia, North and Sub-Sahara Africa, Latin America, and the Caribbean. Topics include economic and political development, regime types, trade, political culture, and contemporary challenges. May be used to fulfill the Cultural Diversity course component of the General Education Requirements. Prerequisite: POLS 130 or consent of the Chair of the Department.

POLS 332/532. Politics of China and East Asia. Cr . 3. This course examines the politics of contemporary China and East Asia. It traces the cultural and historical legacies affecting political life and the political processes through which nation-state, citizen-subjects, and the organizations and institutions of governance are constructed and interact. It also examines the major political challenges facing the region. Prerequisite: POLS 130 or consent of the Chair of the Department.

## POLS 333/533. Politics of Africa.

Cr . 3. This course explores the economic, social, and political challenges facing Africa today, and places them in historical and global contexts. Key themes include democratization, the origins of conflict, and political and economic development. Prerequisite: POLS 130 or consent of the Chair of the Department.

## POLS 334/534. Politics of the Middle East.

Cr. 3. This course explores the contemporary politics of the Arab world. It focuses on the political development and dynamics of these countries, and their relationships with each other and the rest of the world. Prerequisite: POLS 130 or consent of the Chair of the Department.

POLS 336/536. Politics of Latin America.
Cr. 3. This course examines the politics of Latin America, with a focus on democracy and economic development. The course includes a brief historical overview, an examination of the fight for democracy, an exploration of citizens' political views, and debate regarding major issues facing the region. Prerequisite: POLS 130 or consent of the Chair of the Department.

## 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: POLS 120 or consent of the instructor. POLS 340 is not required.

## POLS 345/545. The Judicial Process.

Cr. 3. An examination of law and courts as part of the political process with specific emphasis on factors that 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. Prerequisite: POLS 240, 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. Prerequisite: POLS 120 or consent of the Chair of the Department.

## 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 or consent of the Chair of the Department.

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 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.

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 400/500. Comparative Public Policy.
Cr. 3. This course examines how public policies
in other countries differ from those in the United States. The course focuses on the policies coming from both advanced industrialized nations, such as Britain, Japan, and Sweden, as well as from developing states such as Brazil, China, India, and South Africa. Prerequisite: POLS 130 or consent of the Chair of the Department.

POLS 401/501. Gender and Public Policy in Global Perspective.
Cr. 3. The purpose of this course is to introduce students to the role of gender and politics in different countries throughout the world. The course examines the role of women as political actors and their activities in formal and grassroots politics, and analyzes gender as a variable in public policy in different countries. Prerequisite: POLS 130 or consent of the Chair of the Department.

## POLS 409/509. International Political Economy.

Cr. 3. The objective of this course is to introduce students to the study of political economy, with an emphasis on the relationship between politics and economics within the context of globalization. The course draws upon concepts and approaches from political science, economics, history, and sociology in order to offer the student a broad introduction to current issues in political economy. Prerequisite: POLS 130, 230, or consent of the Chair of the Department.

## POLS 410/510. International Regimes and Global

 Governance.Cr. 3. International regimes are systems of norms and rules agreed upon by states to govern their behavior in specific political contexts or issue areas. Thousands of formal and informal international regimes address issues ranging from arms control, trade and economic affairs, human rights, and environmental problems. This course examines the source, effectiveness, and the institutions designed to implement these various regimes. Prerequisite: POLS 130, 230, or consent of the Chair of the Department.

## POLS 411/511. War and Conflict.

Cr. 3. This course focuses on the forces that promote international conflict and peace. Students will discuss the ways in which warfare has changed across history, as well as the form it is likely to take in the future. Of particular interest in the survey of international war will be the intersection between war and politics. Prerequisite: POLS 130, 230, or consent of the Chair of the Department.

## 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 490/590. Seminar in Political Science.
Cr . 1-3. 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, labeled 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: 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 55.
POLS 498. Honors Candidacy in Political Science. Cr. 3. See Honors Work, page 55.

## Psychology

Professors Arkkelin (Chair), Rowland; Associate Professors Carlson, Nelson, Simpson, Winquist; Assistant Professors Morrill, Vernon, Zelechoski; Lecturer Schwartz.

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, 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 ( $245 / 246$, $250 / 251,345 / 346,350 / 351,355 / 356$, or 370 ) 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 Fundamentals of 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 $245 / 246,250 / 251,345 / 346,350 / 351,355 / 356$, and 370 ), one course in personality / social psychology (selected from PSY 125, 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 $245 / 246,250 / 251,345 / 346,350 / 351$, $355 / 356$, and 370 ), one course in personality/ social psychology (selected from PSY 125, 270, 330,332 , and 335 ), and one course in clinical/ applied psychology (selected from PSY 235, 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, $345 / 346,350 / 351,355 / 356$, and 370 ), one course in personality/social psychology (selected from PSY $125,330,332$, 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 370.

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.

## PSY 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.

## PSY 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) and 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 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. $0+2.5, \mathrm{Cr}$. 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 firsthand experience in utilizing behavior modification techniques to facilitate acquisition of pre-learning skills by autistic children. Open to majors and nonmajors. 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.

 $0+2.5, \mathrm{Cr}$. 1. Optional laboratory to be taken in conjunction with PSY 345. Prerequisite: PSY 201 and 202 or consent of the instructor.
## PSY 350/550. Human Cognition.

Cr . 3. The study of various aspects of human learning, memory, and thought, such as perception, attention, development of expertise, problem-solving, reasoning, and language. Prerequisite: PSY 110.

## PSY 351. Laboratory in Human Cognition.

$0+2.5, \mathrm{Cr} .1$. 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. $0+2.5, \mathrm{Cr}$. 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: psychology major with junior standing and 15 credits in psychology.

## PSY 370. Laboratory in Experimental Design and

 Analysis.Cr. 3. Advanced study of the methodological and quantitative concepts introduced in PSY 201 and 202 with an emphasis on applications of complex designs. This course may be taken to fulfill the experimental psychology course requirement. Prerequisites: PSY 201 and 202.

## PSY 390/590. Special Topics in Psychology.

Cr. 1-3. Selected topics based on the special interest areas of students and faculty. Recent topics have included cross-cultural psychology, psychology of women, industrial psychology, psychology of religion, and altered states of consciousness. Topics and descriptions are announced in advance. 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 465/565. 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 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 classroomdiscussion meeting. A written report is required. Prerequisites: psychology major, consent of the instructor, and depending on the practicum site, PSY 461 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.
$\mathrm{Cr} .1-3$. 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 498. Honors Candidacy in Psychology.
Cr. 3. See Honors Work, page 55.

## 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.

## PSY 497. Honors Work in Psychology.

Cr. 3. See Honors Work, page 55.


## Social Work

Associate Professor Ringenberg (Chair); Lecturers Crumpacker-Niedner, GaebelMorgan.

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 empowering 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 program at Valparaiso University offers a degree (BSW) 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 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 45 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, interviewing cross-culturally, visiting the state legislature, and presenting at undergraduate research conferences.

Social work majors at Valparaiso University can broaden their learning by pursuing cocurricular plans of a double major or minor that combines their interest in disciplines such as psychology, theology, international service, political science and international relations, criminology, 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, England, and Germany.

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, churches, 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 or three semesters. Graduates also 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 wellestablished 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 45 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, one course in political science and one of the following courses: ECON 136, 221, 222, 233, GEO 201, 320.

Field instruction is required for social work
majors enrolled in SOCW 340, 455, 456, 485, and 486. 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 total for the fall and spring semester senior year. Students are required to maintain an overall 2.50 grade point average in required social work courses.

All junior and senior social work majors are required to pay field (internship) fees prior to beginning field practice. Additionally, participation in several educational events is expected of all majors. One comprehensive fee covers all these costs. It is currently $\$ 275$ for juniors and seniors and $\$ 50$ for sophomores and first year students.

Minor. A minimum of 15 credit hours in social work constitutes a minor. These credits may be selected from SOCW 151, 210, 220, 240, 330,390 , and 393 . SOCW 365 or 410 may be substituted for other courses with permission of the Chair of the Department.

Admission. A student's formal admission into the Department as a major requires approval by the Department, successful completion of SOCW 151, 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 online 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. This course introduces students to social work, one of the most dynamic and diverse professions in the public service arena. From a beginning look at its historical roots, to the wide variety of practice arenas, students will gain a preliminary understanding of foundational theory and conceptual materials required for effective generalist practice and essential skills necessary to develop professional and personal success. The course is intended for social work majors, minors, exploratory students and those considering a double major or work in the human service field. Twenty-five hours of out-of-class self-directed learning experiences are required. Fifteen to twenty of the twenty-five hours will be community volunteering.

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. Various other theoretical frameworks are examined as they apply to different social groups (friendship, family, organization, community). General 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. Communication and Counseling Skills. Cr . 3. This course is a unique experiential and introductory interviewing course where students critically examine and learn about foundational theory for communication and counseling skills. Additionally, they learn elements of basic counseling theory, the overarching helping process in a multicultural context, and then apply theoretical frameworks in 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 250. Family in Society.

Cr. 3. This course prepares beginning-level social service professionals to work effectively with families. Theoretical material on family development and family dynamics is introduced. Skills that are particularly helpful in work with families are explained. Diversity within and between families' matters is also explored. Students will assess families and practice applying the skills and concepts discussed in class through role plays. Prerequisite: SOCW 240.

## SOCW 330. Diverse Populations: Human Rights \&

 Justice.Cr. 3. This course introduces students to some of the diversity factors by which people self-define or are defined by others. Students will learn
social work theories and practices relevant to understanding human diversity and how it is sometimes used as an excuse for oppression, as well as strategies to address human rights and social justice issues involved in such situations. Prerequisite: junior/senior status. May be used to fulfill either the Cultural Diversity course component or to partially fulfill the Social Science component of the General Education Requirements, but not both.

## 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 a 100 -hour educationally directed and supervised internship, 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 .4 . 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 393. 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 standing or 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 and SOCW 151, 210, 220, 240, 330, 365, or consent of the Chair of the Department,

## 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.

$3+3, \mathrm{Cr}$. 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 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.

$2+3, \mathrm{Cr}$. 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. Event Leadership and Organizing for Communities.
Cr. 1. Seniors will be responsible to plan, implement, and evaluate multiple departmental events. Community change theories will be used to structure each stage of the process. Various social work faculty will serve as consultants in their areas of expertise. Leadership roles will be divided among the students to ensure that each student assumes a primary leadership role for one event. Prerequisites: SOCW 455 and SOCW 485.

SOCW 497. Honors Work in Social Work. Cr. 3. See Honors Work, page 55.

SOCW 498. Honors Candidacy in Social Work. Cr. 3. See Honors Work, page 55.


## Sociology and Criminology

Associate Professors D. Bartusch, Venturelli, Yogan (Chair); Assistant Professor Lavin-Loucks.

The Department of Sociology encompasses the disciplines of sociology, criminology, and anthropology, and seeks to provide a broadbased 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 and 3 credit hours of statistics. 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, one (1) additional course at any level, and one statistics course from the following options: PSY 201, MATH 140 or 240, or IDS 205.

Students who seek careers involving agency administration should consider the Fundamentals of Business Minor (page 235).

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 and 3 credit hours of statistics. In addition to the core courses required of all majors, students in the criminology concentration are required to enroll in SOC 130, 311,386 , and one of $(270,350,360,391$, or 370$)$. Students who are completing the concentration in criminology must also take two other courses at the 200 level or beyond and one statistics course from the following options: PSY 201, STAT 140 or 240 , or IDS 205.

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 Fundamentals of Business Minor (page 235) or the Chicago Urban Semester (page 59).

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.

General Education Social Science Requirement. Courses in sociology partially fulfill the Social Science Requirement of the General Education Requirements.

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.

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 210. 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. Normally offered during the summer.

## 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 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. Normally offered during the spring semester.

## 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. Normally offered during the fall semester.

## 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.

## SOC 290. Topics in Sociology.

Cr. 3. A survey course focusing on topics from a sociological perspective generally involving the interplay between social structure(s) and social interaction(s). The exact topic of the course may vary each time this course is offered. Topics may include: criminal investigations, sport and society, cyber communities, religion and society, drug use and abuse, deviance, crime, prison and prison cultures, race and ethnicity, and gender and gender issues. May be repeated for credit if topics are different.

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 fall.

## SOC 311/511. Criminological Theory.

Cr. 3. Study of the major sociological theories of crime. Considers how crime is defined and measured, and how society responds to criminal behavior. Required of all sociology majors with the concentration in criminology. Prerequisite: SOC 110 or 130 or consent of the instructor. 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. Prerequisites: SOC 110 and one statistics course (PSY 201, STAT 140, 240, or IDS 205), or consent of the Chair of the Department. Normally offered every spring.

## 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 326/526. Drugs in Society.

Cr . 3. This course is an introduction to the study of the use and abuse of commonly known drugs from sociological, psychological, and pharmacological perspectives. Included are timely drug topics and issues such as drug testing, decriminalization and legalization, drugs and crime, drug prevention, and the latest data regarding the use and abuse of drugs. Normally offered each spring semester of even number years. Prerequisite: SOC 110 or 210 or consent of the instructor.

## 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. Normally offered each spring of odd-numbered years.

## SOC 350/550. Police in Society.

Cr .3 . An examination of the history, structure, and behavior of the police in American society and other selected countries/societies. Students will learn about the history of American policing, police practices, the relationship of the police system to the constitution and local and national society. Overall emphasis is on the description and analysis of the police as part of a culture's broader system of social control. Prerequisite: SOC 110 or 130 or consent of the instructor. Normally offered each spring of even-numbered years.

## 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. Normally offered each fall of even-numbered years.

## SOC 370/570. 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. Normally offered each spring of odd-numbered years.

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. 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. Normally offered each spring and second summer session.

## 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 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 majors. Prerequisites: SOC 110, 320, and either 310 or 311 or consent of the instructor. 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 55.
SOC 498. Honors Candidacy in Sociology. Cr. 3. See Honors Work, page 55.

## Theatre

Professors Orchard (Chair), Heckler; Associate Professors A. Kessler, R.A. White; Assistant Professor Ernstein.

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 nonWestern 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 disciplines 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 four major productions, an annual concert of dance, experimental theatre, student-directed plays, 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.

$2+2, \mathrm{Cr} .3$. 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.

THTR 190/390. 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 230. Makeup and Costume.

$2+2, \mathrm{Cr}$. 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.

$2+2, \mathrm{Cr}$. 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.

$2+2, \mathrm{Cr}$. 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.

## 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 flatpatterning, 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.

$2+2, \mathrm{Cr} .3$. 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.

## THTR 356/556. Design for the Theatre.

$2+2, \mathrm{Cr}$. 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, oddnumbered years. Prerequisites: THTR 129, 230 and 231 or consent of the instructor.

## THTR 357. Acting for the Camera.

$2+2, \mathrm{Cr} .3$. 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 oncamera actor.

## 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.

## 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.

$2+2, \mathrm{Cr} .3$. 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 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.

THTR 497. Honors Work in Theatre.
Cr. 3. See Honors Work, page 55.

THTR 498. Honors Candidacy in Theatre.
Cr. 3. See Honors Work, page 55.


## Theology

Professors R. DeMaris, Grundmann, Meilaender, J. Moore, Niedner, Rittgers; Associate Professors M. Bartusch, Becker, L. Driver, Heider (Chair), 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 requires that students complete two courses: THEO 200 (or CC 215 for Christ College students) and any Theology course at the 300-level. These two courses may be taken in any order and in any semester of a student's program of study. Students whose academic programs require only one course in Theology must take THEO 200.

Major. A minimum of 31 credit hours in theology constitutes a major. Courses must include a course in biblical studies (311-319), a course in the foundations of Christianity (320-329), a course in theology and ethics (330353 [when topic is appropriate]), a course in religions of the world (360-369), and seminar 493. In addition, majors must take at least five more courses at the 300-level and, normally in their junior year, must intensify one 300-level course.

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.

The 18-hour minor requirement includes THEO 200 or, for Christ College students, CC 215.

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 (see page 55).
2. Students preparing for seminary should consult "Preparation for Seminary" on page 53. Further information is available from the Chair of the Department of Theology and on the Department's Web site: <www.valpo.edu/theology>.
3. Students interested in service as Directors of Christian Education, Youth Ministers or in other ministries that may be held with a bachelor's degree, should take the Theology and Ministry major (see pages 183-184).
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.

## 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.

## BIBLICAL STUDIES

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 Pentateuch.

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 315/515. The Prophets.

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 World of the New Testament.

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. 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.

## FOUNDATIONS OF CHRISTIANITY

## THEO 320. Early Christianity.

Cr. 3. A study of the beliefs, practices, and experiences of the early Christians from the second to the sixth century. Particular attention will be given to early Christian theological methods and the relationship between belief and behavior.

THEO 321. Medieval Christianity: East and West. Cr. 3. A comparative study of eastern and western Christianity from the fifth to the fifteenth century. The course will examine the distinctive characteristics of both Christian traditions including missions, ecclesiastical organization, Christological developments, reform movements, and devotional practices.

## THEO 322. Early Christian Social Thought.

Cr. 3. A study of Christian concepts about the human person in community and the shape of Christian social action from the first to the sixth century. Particular attention will be given to the spheres of economics, education, family, and health.

## THEO 323/523. Reformation Theology.

Cr.3. A study of the major theological developments of the sixteenth-century reform movements, both Protestant and Catholic.

## 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 328/528. Topics in Lutheran History and Theology.

An examination of selected issues, movements, thinkers, or institutions within the Lutheran
tradition. May be repeated for credit if topics are different.

## THEO 329/529. Topics in Christian History.

Cr. 3. An examination of a selected topic or thinker in the history of Christian thought and institutions. May be repeated for credit if topics are different.

## THEOLOGY AND ETHICS

THEO 330/530. Christian Theology in the Eighteenth and Nineteenth Centuries.
Cr. 3. A study of themes and problems (e.g., the relation of faith and history, the relation of faith to emerging modern science, the nature of religious authority) in the period from Kant and Reimarus to Ritschl.

THEO 331/531. Christian Theology in the Twentieth Century.
Cr. 3. A study of themes and problems (e.g., the nature of God and revelation, divisions within the church, the church's relation to Judaism, the nature of secularization) in the period from Barth to John Paul II.

THEO 332. Christian Theology and the Moral Life. Cr. 3. An examination of basic concepts of Christian ethics such as the sources of moral knowledge, the structure of Christian life, and the virtues central to it.

THEO 333/533. 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 "majority 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 334. 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 341. Bioethics.

Cr. 3. (Also offered as PHIL 341.) A study of a range of moral issues encountered in both clinical medicine and human experimentation.

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 345/545. 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 346/546. 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 348. Topics in Modern Christian Theology. Cr.3. An examination of a selected thinker or theme in Christian thought of the last three centuries. May be repeated for credit if topics are different.

## THEO 349. 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.

## RELIGIONS OF THE WORLD

THEO 360/560. Themes in the History of Religions.
Cr. 3. A study of the history and themes of various religious traditions, with special attention to methods for studying those traditions. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

## THEO 361/561. Indian Religions and Culture.

Cr. 3. A study of religious traditions of India, viewed through both popular devotional practices and religious texts and rituals. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

## THEO 362/562. 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 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 traditions (Confucianism, Taoism, Buddhism, and Shinto) of China and Japan. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

THEO 364. Native American Religions.
Cr. 3. A study of religious worldviews present in Native American societies north of Mexico. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.
THEO 367/567. Topics in South Asian Religions. Cr. 3. A study of a selected topic in the religions of South Asia. May be repeated for credit if topics are different. May be used to fulfill the Cultural Diversity course component of the General Education Requirements.

THEO 368/568. Topics in Abrahamic Religions. Cr. 3. A study of a selected topic in those religious traditions (Judaism, Christianity, Islam) that trace their history from Abraham. May be repeated for credit if topics are different.

## THEO 369. Topics in Religions in the Americas.

 Cr. 3. A study of selected topics (such as recent religious movements, diaspora communities) in religion in the Americas. May be repeated for credit if topics are different.
## PRE-PROFESSIONAL STUDY

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 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 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. Designed principally for deaconess and church work students. Others must have the consent of the instructor. 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.

THEO 456/556. Church Music and Liturgical Theology.
Cr. 3. (Also offered as MUS 473.) An intensive academic study of the history and practices of music and liturgy in Christian churches
with an emphasis on the Lutheran heritage. Study includes both primary liturgical theology (participation in a variety of liturgical expressions), and secondary liturgical theology (reflection on liturgical forms and structure). Topics include theologies and practices of music, history of hymnody, and music in worship. Open to upper division music majors, as well as upper division and graduate theology majors and minors; other 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. May not be used to fulfill the upper-level Theology component of the General Education Requirements.

## THEO 480. Practicum in Ministry.

Cr. 1-2. 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 four 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.

## ADVANCED STUDY

## 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 culminating in the writing of a senior thesis. Prerequisites: senior standing or 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 55.
THEO 498. Honors Candidacy in Theology. Cr. 3. See Honors Work, page 55.

## Theology and Ministry

The Theology and Ministry major is administered by the Department of Theology.

Objectives. This bachelor-level major is designed for students seeking to serve in Lutheran or other Christian congregations as staff members with responsibility to children, youth, families, and persons of all ages. The major provides a broad range of foundational courses in theology, as well as practical learning experiences. Building on the University's program of General Education and the resources of the Department of Theology, students, in consultation with their academic advisor in the Department of Theology, are able to customize a course of study. This major may also be used as a second major for students with other professional or career goals, but who wish an education that will enable them to serve in leadership positions within a local congregation or other organization on either a part-time or volunteer basis.

Theology and Ministry Major. In addition to meeting the General Education requirements for the Bachelor of Arts degree, this major requires a minimum of 40 credit hours: 28 credits in theology* and 12 credits in related disciplines that complement the student's ministry objectives. One credit must be earned by intensifying the research and writing component of a 300-level theology course. Intensification is normally undertaken during the junior year in preparation for the senior seminar (THEO 493).

## Curricular Requirements <br> Theology courses: <br> Core Foundation ( 18 credits) ${ }^{1}$

1. THEO 200 OR CC 215

The Christian Tradition. . . . . . . . 3 Cr.
2. Biblical Studies:
one course from THEO 310-319. 3 Cr .
3. Foundations of Christianity: one course from THEO 320-329. 3 Cr .
4. Theology and Ethics: one course from THEO 330-349. 3 Cr.
5. Religions of the World: one course from THEO 360-369. 3 Cr.
6. THEO 493 Senior Seminar . . . . . 3 Cr. Ministry courses ( 9 credits):

1. Pre-Professional Study: 2 courses from THEO 353, 451, 453, 456, or 481) 6 Cr.
2. THEO 480 Practicum in Ministry

3 Cr.

[^2]
## Course Intensification (1 credit):

One additional credit added to any 300-level Theology course, except THEO 353.
Electives in Complementary Disciplines (12 credits):

Students broaden their contextual knowledge of ministry by taking a minimum of 12 credits in one or more complementary disciplines as listed below. Alternative courses are permitted for the sake of specific professional objectives with the approval of the student's academic advisor and the Chair of the Department of Theology.

Note: Courses taken for this major may not be counted for credit toward a minor or a second major.

## Art

ART 132 Introduction to Design and Digital Media . . . . . . . . . . . . . . . . . 3 Cr.
ART 230 Desktop Publishing . . . . . . 3 Cr.

## Communication

COMM 230 Desktop Publishing . . . 3 Cr.
COMM 243 Public Communication 3 Cr .
COMM 244 Persuasion and
Advocacy . . . . . . . . . . . . . . . . . . . . 3 Cr.
COMM 345 Leadership
Communication . . . . . . . . . . . . . . . . 3 Cr.
COMM 366 Negotiation and Conflict Resolution 3 Cr .

## Education

ED 304 Educational Psychology . . . . 3 Cr.
ED 306 School and Society. . . . . . . . . 3 Cr.
Note: PSY 110 is a prerequisite for ED 304, but may not be counted among courses for this major.

## English

ENGL 431 Advanced Composition. 3 Cr.
Note: ENGL 200 is a prerequisite for ENGL 431, but may not be counted among courses for this major.

Peace and Social Justice
PSJ 201 Principles of Peace and Social Justice . . . . . . . . . . . . . . . 3 Cr.

Philosophy
PHIL 115 Experience and Existence. 3 Cr .
PHIL 125 The Good Life . . . . . . . . . . 3 Cr.

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Psychology
    PSY 125 Social Psychology . . . . . . . 3 Cr.
    PSY 250 Principles and Application
        of Learning . . . . . . . . . . . . . . . . . . . 3 Cr.
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PSY 332 Psychology of Adulthood
and Aging. . . . . . . . . . . . . . . . . . . . 3 Cr.
PSY 350 Human Cognition . . . . . . . . 3 Cr.
PSY 445 Community \& Health Psychology 3 Cr .
PSY 461 Introduction to Counseling 3 Cr .
Note: PSY 110 is a prerequisite for all psychology courses, but may not be counted among courses for this 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 240 Communication and Counseling Skills. 3 Cr .
SOCW 330 Vulnerable Populations: Color, Gender, and Orientation. . . 3 Cr .
SOCW 410 Analysis of Social Policy 3 Cr.

## Sociology

SOC 220 The Family. . . . . . . . . . . . . . 3 Cr.
SOC 245 Social Psychology . . . . . . . . 3 Cr.
SOC 270 Juvenile Delinquency. . . . . 3 Cr.
SOC 275 Systems of Social Stratification

3 Cr .
SOC 325 Urban Sociology . . . . . . . . . . 3 Cr.
SOC 340 Gender 3 Cr .
Note: SOC 110 is a prerequisite for all 300-level sociology courses, but may not be counted among courses for this major.

## Spanish

FLS 308 Spanish for Service
Professionals. 3 Cr .
Note: FLS 220, 230, or 231 is a prerequisite for FLS 308, but may not be counted among courses for this major.

Symposium and Para-Curricular Activities. Students completing the Theology and Ministry major are also encouraged to participate in THEO 399: Church Vocations Symposium and other para-curricular activities arranged by the Center for Church vocations (see <http:/ / www.valpo.edu/ccv>).

Candidacy and Rostering. Information about rostering in various denominations is available on the Theology Department's website: [http://www.valpo.edu/theology](http://www.valpo.edu/theology).


## Margaret Franson, M.A.L.S., Associate Dean

Professors Bunge, Piehl, Schwehn; Associate Professors Buggeln, Prough; Assistant Professors Graber, Smith, Western; Lecturer Upton; Adjunct Assistant Professor Creech.

Christ College is the honors college of Valparaiso University. Established in 1967, Christ College celebrates over forty years of providing honors-level liberal arts education that integrates fields of study and 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, 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 187-188.

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 80 and 90 freshmen are accepted into the Christ College Freshman Program each fall.

The Christ College Freshman Program (CC 110: Texts 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 Scholar and Christ College Associate 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 1) a cumulative grade point average of 3.30 in all coursework completed at the University and 2) 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 Scholar and Associate 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 Scholar and Christ College Associate 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 $\mathrm{S} / \mathrm{U}$ 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 $\mathrm{S} / \mathrm{U}$ 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. $3+1, \mathrm{Cr} .4$. 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: Children, the Family , and Faith; The Scientific Endeavor; Consumer Culture; Media and Culture in East Asia; Human Rights: Politics, Ethics, Law; Abraham Lincoln and the Civil War; Object, Ritual, Discourse; World Christianity; Medical Missions; Faith and Healing. 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, 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 in Humanities. 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. 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



James D. Brodzinski, Ph.D., Dean<br>Toni M. Spaliaras, M.B.A., Assistant Dean


#### Abstract

Professors Boyt, Brodzinski, Jin, Langrehr, McCuddy, Ozgur, Pinar, D.M. Schroeder, Strasser; Associate Professors Gingerich, LeClere, D.L. Schroeder, Stück, Trapp; Assistant Professors Humphrey, Schiffel, Wilder; Lecturers Guydan, MacLean, Ward.


The College of Business offers two undergraduate degrees: a Bachelor of Science in Accounting; a Bachelor of Science in Business Administration with majors in accounting, finance, international business, management, and marketing. In addition, the College offers several graduate programs include a Masters in Business Administration (see the Valparaiso University Graduate Catalog 2011-2012 for details and descriptions).

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. The mission of the College of Business is to cultivate values-based leaders in a dynamic and global environment.

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, 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 195-196.

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.

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 Fundamentals of Business Minor. For more information and the requirements of these two minors, see page 233 for the Minor in Business Administration and page 235 for the Fundamentals of 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/Certificates for Business Students.
In addition to minors in programs outside the College of Business, business students may complete the requirements for an interdisciplinary minor either in International Business and Global Studies (available to business students only, see page 196), or in Applied Statistics (see page 232). 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 240-243). Business students may also pursue the Certificate in Business Spanish to communicate to employers their ability to converse with Hispanic customers employees, and/or managers; see page 197 for a description and requirements for this certificate.

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 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
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 student in Christ College may graduate either as a Christ College Scholar or as a Christ College Associate (see pages 187188).

## Double Major in the College of Business.

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 COB Assessment Center is not a place, but an event. It evaluates each student in the major soft skills of business management: decision-making, teamwork, communication, leadership, planning, and organization. Students participate in an inbasket task, group discussions, a strategic writing assignment, and an oral presentation. Students receive individualized results. The College uses group results to assess the business curriculum.

For freshman and transfer students, the Assessment Center is offered a lab to BUS 100, required of all incoming students. For senior students, the Assessment Center is required as a lab to MGT 475.

Cooperative Education. Cooperative Education in the College of Business is a program in which students combine fulltime 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:

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 COB's Manager of Experiential Learning, 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 COB Manager of Experiential Learning 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:

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 COB's Manager of Experiential Learning, who monitors the work experience, evaluates the required written journal, and assigns the course grade taking into account the employer's evaluation of the interning student.
3. Placements require the prior approval of the COB Manager of Experiential Learning. 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 one credit for each internship placement.
6. Retroactive credit will not be granted.

Admission. The general requirements for admission to the University and to the College are found on pages 252-254 of this catalog.

Transfers. Students currently enrolled at Valparaiso University and wishing to transfer into the College of Business, 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 257 regarding theology requirements and to page 10 for the First Year Core requirement.

Business courses completed by transfer students may or may not fulfill major requirements. Evaluation of such credit is made by the Dean and may be articulated as elective credit only. 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.

Residence Requirements. In addition to the general residence requirements specified by the University for all bachelor's degree programs (see page 263), all candidates for baccalaureate degrees from the College of Business must satisfy the following residence requirements:

1. At least one-half of the number of total combined credit hours required for the Business Core and declared Business Major must be taken in residence.
2. At least one-half of the number of total credit hours required for the declared Major must be taken in residence.
Progression Standards. The College of Business 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, BUS, FIN, IDS, MGT, or MKT. Courses to be included in the major grade point average are those specifically identified under the Major.
3. 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.
4. 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.
5. 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.
6. 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. 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 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.
7. If a student's overall cumulative grade point average falls below 1.00 during any semester, the Dean of the College of Business 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 262-264 in this catalog).

S/U Grading Option. Business students may not take business courses required for their business degree or declared business major using the S/U grade option, unless

1. the course is only graded on the $S / U$ basis, or
2. the course is a free elective that is not from the student's declared business major.
The S/U option is not permitted in the nonbusiness courses of MATH 122 (131) and MATH 124 (132), ECON 221, 222, and 223, PSY 110 and 111, the economics and foreign language requirements for the International Business major and International Business and Global Studies (IBGS) minor and any nonbusiness course used in the Applied Statistics minor or the Certificate in Business Spanish. See page 259 for the University guidelines for the $\mathrm{S} / \mathrm{U}$ 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 260.

Advisement. Advisement of students admitted to the College is under the direction of the Academic Advisor, who assists freshmen through seniors in selecting courses and interpreting the requirements for an orderly progression toward a degree. 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 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.

Collegiate DECA. 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.

Financial Management Association. The FMA was created in order to give students the opportunity to apply their knowledge and sharpen their skills in finance related fields. This will allow the students to work on their skills in an environment where the costs of mistakes are low, and where they will receive equal
support for their growth in additional to their performance.

## 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

The College of Business 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 Law School); a Master of Engineering Management (with the College of Engineering); a Master of Ministry Administration (MMA) and Management certificate; 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..................................... . . 3 Cr.
THEO 200 The Christian Tradition. . . . . . . 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 200: Literary Studies.
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 145/150)

Social Science course
. 3 Cr . Choose one three-credit course from geography (designated), political science and international relations, 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
KIN 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 . . . . . . . . . . . . . . . . . . . . . . . . . . . . 55-56 Cr.
Nonbusiness Electives (Note 1) . . . . . . . . . . . . 0-8 Cr.
Total General Education . . . . . . . . . . . . . . . . . 55-63 Cr.

## BUSINESS CORE

Freshman/Sophomore Core Courses
BUS 100/100L The Business Experience/Lab3 Cr.
BUS 115 Introduction to Enterprise
Resources Planning Using SAP . . . . . . . . 1 Cr.
BLAW 104 Legal Environment of Business 3 Cr .
ACC 205 Financial Accounting . . . . . . . . . . 3 Cr.
ACC 206 Managerial Accounting . . . . . . . . 3 Cr.
IDS 205 Business Statistics . . . . . . . . . . . . . . 3 Cr.
Total............ . . . . . . . . . . . . . . . . . . . . . . 16 Cr.
Junior/Senior Core Courses
FIN 304 Financial Management . . . . . . . . . 3 Cr.
MGT 304 Management and Organizational
Behavior . . . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
MGT 305 Business Ethics . . . . . . . . . . . . . . . 3 Cr.
MKT 304 Marketing Management . . . . . . . 3 Cr.
IDS 305 Production-Operations
Management. . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
IDS 410 Management Information Systems3 Cr.
MGT 395 Internship Experience in
Business Administration I . . . . . . . . . . . . 1 Cr.
OR MGT 381 Cooperative Education in Business Administration I . . . . . . . . . . . . 2 Cr.
MGT 475/475L Business Policy and
Strategy/Lab ......................... 3 Cr.
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $22-23 \mathrm{Cr}$.
Total Business Core . . . . . . . . . . . . . . . . . . . . . . 38-39 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, 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, 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: 4 or 5 credits, Finance: 6 or 7 credits; International Business: 4 or 5 credits; Management: 7 or 8 credits; Marketing: 7 or 8 credits.
3. No more than six credits combined from performance music, ensemble music, and KIN 100-149 may be applied toward a degree.; one credit is applied directly to KIN 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 may be substituted for MATH 122, and MATH 132 may be substituted for MATH 124.
6. Courses in economics do not satisfy the social science requirement in the College of Business.

## 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 243 Public Communication. . . . . . 3 Cr.
Liberal Arts Elective with Extensive Writing Requirement. . . . . . . . . . . . . . . . . . . . . . . . 3 3 Cr. Total.

Accounting Course Requirements
IDS 110 Business Spreadsheet Applications1 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.
ACC 430 Research and Analysis in Accounting . . . . . . . . . . . . . . . . . . . . . . . . 1 Cr .
ACC 432 Federal Tax Research . . . . . . . . . . . 1 Cr .
BLAW 404 Business Law . . . . . . . . . . . . . . . 3 Cr.
International Business Requirement: Choose one of:
FIN 430 International Finance
MGT 440 Cross-Cultural Management
MKT 430 International Marketing . . . . . 3 Cr.
Accounting Elective. . . . . . . . . . . . . . . . . . . . 3 Cr.
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 37 Cr.
Major Field Requirement . . . . . . . . . . . . . . . . . . . 3 Cr.
Select one non-core business course
numbered above 300 .
Free electives (Notes 2, 3, and 4) ............... 3 Cr.
Grand Total .................................... . . 150 Cr.

## BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION

Students who choose the Business
Administration degree may select from five majors: Accounting, Finance, International Business, Management, or Marketing.

## ACCOUNTING MAJOR

IDS 110 Business Spreadsheet Applications1 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.
ACC 430 Research and Analysis in
Accounting . . . . . . . . . . . . . . . . . . . . . . . . . 1 Cr.
International Business Requirement:
Choose one of:
FIN 430 International Finance
MGT 440 Cross-Cultural Management
MKT 430 International Marketing . . . . . 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) ......... 4 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 MAJORMGT 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:MGT 440 Cross-Cultural Management . 3 Cr.
MGT 470 High Performance Organizations 3 Cr .
Total. ..... 15 Cr .
Major field requirement ..... 9 Cr .
Select three non-core business coursesnumbered above 300 .
Free electives (Notes 2,3, and 4) ......... 7 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:
MKT 430 International Marketing ..... 3 Cr.
MKT 470 Marketing Strategy and Policy. . 3 Cr.
Total.Major field requirement6 Cr .
Select two non-core business coursesnumbered above 300 .Free electives (Notes 2, 3, and 4) ......... 7 Cr.
Grand Total ..... 125 Cr .
INTERNATIONAL BUSINESS AND GLOBAL STUDIES MINORAdministrative Committee: Associate
Professor Stück, Assistant Professor Trapp.
Intercollegiate Advisory Committee:
Department Chairs of Economics, Foreign
Languages and Literatures, Geography,
History, and Political Science and
International Relations.

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 .
MGT 440 Cross-Cultural Management . . . 3 Cr.
MGT 471 International Business Environment
and Global Strategy . . . . . . . . . . . . . . . . . . 3 Cr.
MKT 430 International Marketing . . . . . . . 3 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 $\qquad$ Choose two of the following courses: GEO 301: Latin America regional course, HIST 232, 329. 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.

## CERTIFICATE IN BUSINESS SPANISH

Objective. This certificate program is designed to provide business students with the needed knowledge to be able to converse in Spanish with business people who are from Hispanic backgrounds. The special feature of this program is a course that will prepare students for potential business situations they might encounter with Hispanic customers, employees, and managers.

Requirements. Admission to one of the following programs is required prior to declaring this certificate: all Business Administration majors and minors (including the Fundamentals of Business Minor), International Economics and Cultural Affairs majors, Economics majors and minors, Actuarial Science majors or minors, Sports Management majors, and Music Industry majors. A minimum of 14 credit hours is required to complete this certificate.

## Required Courses

FLS 204 Spanish Composition and Conversation OR FLS 306 Contemporary Hispanic Society through Communication ................. . 4 Cr . FLS 230 Spanish Civilization OR

FLS 231 Spanish-American Civilization. . . 4 Cr. FLS 307 Professional Spanish. . . . . . . . . . . . . . . . . 3 Cr.
MGT 335 Spanish Communication in Business Transactions . . . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.

A minimum grade point average of 3.0 is required in the certificate with no less than a grade of B- in any of the courses.

Although not required, candidates for this certificate are strongly encouraged to participate in the University's study abroad centers in Granada, Spain and/or Puebla, Mexico or to seek an equivalent learning experience preapproved by the College of Business in another Spanish-speaking country. Candidates for the certificate must complete at least one-half of the credits, including MGT 335, at Valparaiso University. There cannot be more than a twocourse overlap with any other major or minor to earn the certificate.

## COURSE DESCRIPTIONS

In order to enroll in COB 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 290/390/490. Topics in Accounting.

$\mathrm{Cr} .1-3$. 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 courses 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 430. Research and Analysis in Accounting.

 Cr . 1. A study of the wide variety of resources available for research in accounting standards and analysis of accounting issues. This will be done through both a lecture format and handson problem solving. This course is designed to present both the materials necessary for research and the process for using them. Students will gain a knowledge base that they will be able to draw upon to both understand and use the resources available for accounting research and the analysis of accounting issues. Covers both print and, to the extent they are available, online sources.
## ACC 432. Federal Tax Research.

Cr. 1. (Also offered as LAW 432.) A study of the wide variety of resources required for federal tax research. This will be done through both a lecture format and hands-on problem solving. This course, as with all legal research courses, is designed to present both the materials necessary for research and the process for using them. Students will gain a knowledge base that they will be able to draw upon to both understand and use the resources of federal tax research. Covers both print and, to the extent they are available, online sources.

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.

## GENERAL BUSINESS

BUS 100. The Business Experience.
Cr. 3. This course provides students with an
overview of today's business world, with a particular emphasis on values-based issues and perspectives. Students will learn to view a business not simply in terms of its financial performance, but also its social and environmental impacts. The course includes assessment and skills development components designed to help students improve some of the softer skills they will need for professional success. Students must also register for a corresponding lab of the course for assessment.

BUS 100L. The Business Experience Lab. Cr . 0 . This lab will involve approximately one half-day of assessment activities. Students will participate in a series of exercises designed to evaluate their skill level in a variety of behavioral dimensions (e.g., communication, teamwork, problem-solving skills). Students will subsequently receive a personalized, detailed report.

BUS 115. Introduction to Enterprise Resource Planning Using SAP.
Cr . 1. An introduction to how the fundamental business processes interact with SAP ERB in functional areas such as Sales and Distribution, Materials Management, Production Planning, Financial Accounting, Controlling, and Human Capital Management. Features include hands-on use of the SAP graphical user interface (SAP GUI). Course is designed to prepare the student to make more specific use of SAP software in other classes.

## 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/STAT 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/STAT 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, probability distributions, descriptive statistics, sampling distributions, parameter estimation, hypotheses tests, and simple regression. Prerequisite: MATH 122 or 124 or 131.

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 or 131 and one of MATH 124 or 132; and completion of or concurrent enrollment in IDS 205 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: one of IDS 205, STAT 140, STAT 240, MATH 264, or PSY 201.

IDS 340. Statistics for Decision Making.
Cr. 3. (Also offered as STAT 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: one of IDS 205, STAT 140, STAT 240, PSY 201, CE 202 or completion of or concurrent enrollment in ECE 365. Not open to students who have completed STAT 340/540.

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 STAT 240.
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 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 305 (formerly MGT 460). Business Ethics.

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 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 labormanagement 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 335. Spanish Communication in Business

 Transactions.Cr. 3. Course taught in Spanish to explore potential business situations and to imitate interaction with customers, employees and managers. Capstone course for the Certificate in Business Spanish. This course may not be used to fulfill the upper business elective in a student's declared business major. Prerequisites: junior standing, completion of FLS 204 or 306, FLS 230 or 231, and FLS 307.

## 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 COB 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 COB Internship and Assessment Center Coordinator and the Director of the Career Center. S/U grade.

## MGT 395. Internship Experience in Business

 Administration I.Cr. 1. 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; students will secure an internship, and have the internship and related job description approved. Prerequisite: junior standing. 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 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 COB students. Prerequisite: junior standing.

## MGT 470. High Performance Organizations.

Cr. 3. This course focuses on learning to create high performance organizations. The high performing organization is one that provides customers with optimum value, satisfies all stakeholders, and creates an environment where members know more, do more, and contribute more. The goal is to understand what separates the merely ordinary organization from the extraordinary one. Cutting edge theory and practice will be integrated throughout the course. 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. Students must also register for a corresponding lab of the course for assessment. Prerequisites: senior standing, FIN 304, IDS 305, MGT 304, MKT 304, and completion of, or concurrent enrollment in, IDS 410.

## MGT 475L . Business Policy and Strategy Lab.

Cr . 0. This lab will involve approximately onehalf day of assessment activities. Students will participate in a series of exercises, similar to those done during the freshman year in BUS 100L, designed to evaluate their skill level in a variety of behavioral dimensions (e.g. communication, teamwork, problem-solving skills). Students
will then subsequently receive a personalized, detailed report. These results can then be used to assess the growth of the individual in their academic program.

## 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.

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.
$\mathrm{Cr} .1-3$. 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.

## MKT 430. International Marketing.

Cr. 3. A study of managerial marketing policies and practices of organizations marketing their products and services in foreign countries.


## COLLEGE OF ENGINEERING



Eric W. Johnson, Ph.D., Dean (Acting)

## Mission. The College of Engineering

 mission 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 Programs. 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 firsthand 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 topics 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 fouryear 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 and have been accredited since 1958. 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 southeastern edge of 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.

With the beginning of the 2011-2012 academic year, a new state-of-the-art facility was made available to College of Engineering students. This soon-to-be-certified United States Green Building Council Leadership in Environmental and Energy Design (LEED) building, named the Donald V. Fites Engineering Innovation Center, honors one of Valpo's most prolific graduates for his contributions as CEO and Chairman of the Board for Caterpillar Incorporated. The Fites Center is an approximately 14,000 square foot high-performance building, which houses innovative laboratory, design, and meeting spaces that foster faculty-student interactions.

The James S. Markiewicz Manufacturing and Projects Center forms a physical link between the Gellersen Engineering and Mathematics Center to the north, and the Fites Center to the south. The Markiewicz Manufacturing and Projects Center includes the Projects Laboratory and the James S. Markiewicz Manufacturing Suite.

The James S. Markiewicz Solar Energy Research Facility opens in the 2012-13 academic year. This facility will provide engineering students with extraordinary laboratory and research experiences in solar energy engineering.

Both the Manufacturing Projects Center and the Solar Energy Research Facility are named
after James S. Markiewicz, '72 ME, whose generosity made these spaces possible.

College Organization. Administratively, the College is an instructional unit under the direction of the Dean. The four programs, 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.

Accreditation. Bachelor of Science degree programs in Civil Engineering, Computer Engineering, Electrical Engineering, and Mechanical Engineering are accredited by the Engineering Accreditation Commission of ABET, Inc. [http://www.abet.org](http://www.abet.org)

Admission Requirements. The requirements for admission of first-year students to the College are listed on page 253 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 2.00 in the three categories described on page 209 may request admission to the College of Engineering.

Transfer Students. Academic work taken at other institutions is evaluated for advanced standing by the Office of the Registrar. The Freshman Engineering Coordinator, in consultation with the appropriate department chair, 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 plan 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, email, and the Internet on the campus computing network. Network-connected computers for general student use are located in the Fites and Gellersen Centers and in other buildings across campus. 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.

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 Fundamentals of Engineering course (GE 100) 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 unit consists of a lecture with in-class exercises and a handson laboratory experience. Student mentors (i.e., our best students from previous classes) aid in the laboratory projects.

Freshmen will also participate in an Engineering Seminar (GE 199), which features alumni and campus speakers to help them better understand the possible career paths available with an engineering degree.

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 before 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 mathematics, science, and engineering courses for all engineering students. In conjunction with other campuswide 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 the faculty.

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. 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 Practice of Engineering (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), and the American Society of Mechanical Engineers (ASME) all have active student chapters on campus.

Junior and senior students who have distinguished themselves by high scholarship, exemplary character, unselfish activity, and breadth of interest in their profession may be elected to membership in Tau Beta Pi, the national engineering honor society.

The College of Engineering supports other organizations of interest to its students. These include the Society of Automotive Engineers (SAE) and a vibrant section of the Society of Women Engineers (SWE). In alignment with the University's and College of Engineering's mission statements, the Engineers Without Borders ${ }^{\mathrm{TM}}$ (EWB) - Valparaiso Chapter was formed in the spring of 2002. This national award-winning chapter has made numerous trips to Kenya, installing wind-, solar-, and PlayPump ${ }^{\circledR}$-powered pumps for water and irrigation systems for a village which previously had little access to fresh water.

Placement. The Career Center arranges on-campus interviews with a variety of employers who are interested in hiring our 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.

## SPECIAL PROGRAMS OF THE COLLEGE OF ENGINEERING

Cooperative Education. The Cooperative Education Program provides an optional 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 offcampus 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 benefits provided to full-time 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 during their summer breaks. Participation is typically limited to the summer between the freshman and sophomore years through the summer between the junior and senior years. Academic year internships may be accommodated on a case-by-case basis. 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 from the Dean. 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 second engineering degree, a Bachelor of Arts or Bachelor of Science degree
in the College of Arts and Sciences or the College of Business in addition to their first 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.

Engineering and MEM or MBA Program. An engineering student interested in acquiring business, values-based leadership, and entrepreneurial acumen to augment their engineering skillset should consider pursuing either the Master of Business Administration (MBA) degree or Master in Engineering Management (MEM) degree housed in the College of Business. Through careful academic advising and proper selection of either a Business Administration minor or a Fundamentals of Business minor, an engineering student can complete the B.S. in Civil, Computer, Electrical, or Mechanical Engineering and either the MBA or MEM in five years. Interested students should speak with their academic advisor as early as possible when formulating their plan of study.

Majors and Minors. An engineering student may earn multiple majors or minors in other colleges of the university by satisfying catalog course and credit requirements for each major or minor. Each major or minor will require at least one course (of at least three credits) above any and all coursework presented for the engineering degree. The use of engineering courses that are cross-listed or that 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 engineeringrelated field. This minor would be of interest to science students who need an approved minor to graduate (see page 49). The Freshman Engineering Coordinator will serve as the advisor.

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 program of study must be approved by the student's academic advisor.

Humanitarian Engineering Minor. The Humanitarian Engineering Minor gives students the understanding and the opportunity to apply engineering concepts to improve the welfare of the less advantaged. Coursework enhances cultural awareness and helps students identify problems that engineers could solve. The Freshman Engineering Coordinator will serve as the advisor.

A minimum of 18 credit hours is required. Courses must include GS 180 (3 credits), GE 299 (taken every spring semester), and 15 credits selected from ECON 210, 336; ENGL 396; ENVS 340; GEO 101, 102, 201, 260, 301, 470, 475; GLST 150; HIST 232, 240, 250, 329, 341, 350, 355; PHIL 125; POLS 130, 335; SPED 441; THEO 360, $362,363,364,368$; Foreign Language ( 4 credits maximum). At least one credit of GS 180 must be for activities in Engineers Without Borders or a similar approved engineering project. Non-engineering students may earn this minor by completing the Engineering Minor and the above 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 Deans.

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 12-14 and 20-27 of this catalog, engineering students are permitted to arrange an international cooperative education assignment.

Valparaiso University International Engineering Programs (VIEP). VIEP is a five-year program that combines a major in one of the four engineering fields with a major or minor in German (VIEP-German), French (VIEP-French), Spanish (VIEP-Spanish) or a minor in Chinese (VIEP in China). The program allows students to gain multicultural experience and language proficiency along with technical engineering skills and prepares them for careers with one of many international firms located in the United States and around the world.

VIEP-German: Students are required to fulfill all requirements for one of the four engineering majors; take at least one German language course per semester beginning, at the latest, in the third semester; participate in the University's Study Abroad Program in Reutlingen, Germany, in the seventh semester; work in a cooperative education placement in Germany during the eighth semester and the ensuing summer; and reside in the KadeDuesenberg German House and Cultural Center for at least two semesters.

VIEP-French: Students are required to fulfill all requirements for one of the four engineering majors; take at least one French language course per semester beginning, at the latest, in the third semester; participate in the University's Study Abroad Program in La Rochelle, France, in the seventh semester; work in a cooperative education placement in France during the eighth semester and the ensuing summer; and reside in La maison française French House for at least two semesters.

VIEP-Spanish: Students are required to fulfill all requirements for one of the four engineering majors; take at least one Spanish language course per semester beginning, at the latest, in the third semester; participate in the University's Study Abroad Program in Zaragoza, Spain, in the seventh semester; and work in a cooperative education placement in Spain during the eighth semester.

VIEP in China: Students are required to fulfill all requirements for one of the four engineering majors; take at least one Chinese language course per semester beginning, at the latest, in the third semester; participate in the University's Study Abroad Program in Hangzhou, China, in the seventh semester; and work in a cooperative education placement in China during the eighth semester and the ensuing summer.

VIEP-German, VIEP-French, VIEP-Spanish, and VIEP in China are coordinated jointly by the College of Engineering and the Department of Foreign Languages and Literatures. Students who wish to enroll in one of the programs should see their engineering advisor and a

German, French, Spanish, or Chinese 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 general criteria for baccalaureate-level programs as defined by ABET. The evaluation of advanced standing of transfer students in the Statement of Equivalence is based on meeting these criteria. The Department Chair 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 262-264 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 category below 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), all general engineering courses (GE), and ECE 281 for ME majors.
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 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

Eric W. Johnson, Dean (Acting); Barbara Engerer, Freshman Engineering Coordinator; John R. Steffen, Engineering Cooperative Education and Internships 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.

$1.33+1.33$, Cr. 2. This is an introductory 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 and design projects related to topics covered.

## GE 109. Mechanics-Statics.

Cr. 3. (Also offered as PHYS 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, 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. S/U grade only.

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 299. Humanitarian Engineering Colloquium. Cr. 0. Students will present their work in humanitarian engineering. Guest speakers will be invited to present topics relating to humanitarian issues. Students pursuing the Humanitarian

Engineering Minor are expected to register for the colloquium every spring semester. S/U grade only.

GE 301. Financial and Ethical Decisions in Engineering.
Cr. 3. A discussion of essential non-technical issues that impact engineering decision-making. Topics include calculating measures of financial merit for engineering decisions, selecting the most economically desirable solution from among several alternatives, recognizing situations that require ethical judgment, and applying engineering codes of ethics to make ethical decisions. Concepts of sustainability and sociopolitical influence are discussed. Prerequisite: junior standing.

## GE 386. Internship in Engineering.

Cr. 1. An 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 $\mathrm{S} / \mathrm{U}$ basis. Prerequisites: student must be in good standing in the College of Engineering and have approval of the Engineering Cooperative Education and Internships Coordinator.

## GE 481. Cooperative Education I.

Cr . 2. Application of the concepts of engineering 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 $\mathrm{S} / \mathrm{U}$ only for civil and mechanical engineering majors. Prerequisite: approval of the Engineering Cooperative Education and Internships 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 $\mathrm{S} / \mathrm{U}$ only for civil and mechanical engineering majors. Prerequisite: GE 481 and approval of the Engineering Cooperative Education and Internships Coordinator.

## GE 483. Cooperative Education III.

Cr . 1. Application of the concepts of engineering in a business, consulting, industrial or government setting. Requires the submission of reports in a format approved by each department. This course is graded $\mathrm{S} / \mathrm{U}$ only for civil and mechanical engineering majors. May be repeated for up to three credit hours. Prerequisite: approval of the Engineering Cooperative Education and Internships 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.

## 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. Corequisite: GE 301 and [(prerequisite: ECE 340 or 322) or (corequisite: ME 363 or 463)].

## GE 498. Senior Design Project II.

Cr. 3. A continuation of GE 497. Projects are built, tested, documented and reported. Prerequisite: GE 497.

## Civil Engineering

Professors Schemmel, Weiss; Associate Professors Aljobeh, Hagenberger (Chair), Polito; Assistant Professor 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 exceptional 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 Program Educational Objectives help to direct and measure the success of the Civil Engineering Department in accomplishing its mission. They are broad statements that describe what graduates are expected to attain within a few years of graduation and are based on the needs of the program's constituencies. The Civil Engineering Program Education Objectives state that within five to ten years of graduation, civil engineering alumni will have:

1. Attained a position within the civil engineering community through which they are able to make a positive contribution to the engineering profession and society as a whole.
2. Participated in continuing education activities, such as courses taken for advanced degrees, seminars, workshops, and conferences, demonstrating their
commitment to lifelong learning; and
3. Advanced in their profession. Advancement may be demonstrated through achievements such as promotions and licensure.
"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 wellbeing 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 (i.e., using economic, 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 their introductory courses in structural and transportation engineering. In the junior year, additional aspects of the design process and the use of standards, specifications, and building codes are discussed in courses in environmental engineering, water resources engineering, soil and foundation engineering, structural engineering, and transportation engineering. In the senior year, students apply their design
skills in their civil engineering electives and capstone design experience. The capstone courses include a major, comprehensive design project in which students work in teams to bring together their accumulated knowledge of civil engineering to solve engineering problems with realistic constraints.

Laboratory work is designed to develop written communication skills, ability to analyze and interpret experimental data, selfconfidence, 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. 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 .
MATH 131 Calculus I . . . . . . . . . . . . . . . . . . . . . . . 4 Cr.
MATH 132 Calculus II . . . . . . . . . . . . . . . . . . . . . 4 Cr.
MATH 253 Calculus III. . . . . . . . . . . . . . . . . . . . 4 Cr.
MATH 260 Linear Systems and Matrices. ...... 1 Cr.
MATH 270 Ordinary Differential Equations. . . 3 Cr.
KIN 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 .
Science Elective. . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
Technical Elective. ............................. 3 Cr.
Free Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
GE 100 Fundamentals of Engineering ......... 2 Cr.
GE 109 Mechanics-Statics . . . . . . . . . . . . . . . . . . . 3 Cr.
GE 199 Engineering Seminar . . . . . . . . . . . . . . . . . 0 Cr.
GE 301 Financial and Ethical Decisions in
Engineering. ........................... 3 Cr.
CE 151 Computer-Aided Drafting. ............. 1 Cr.
CE 202 Statistical Applications in
Civil Engineering........................ 3 Cr.
CE 212 Materials Engineering ................. 3 Cr.
CE 213 Technical and Professional Writing in
Civil Engineering........................ 1 Cr.
CE 215 Mechanics of Materials ................ 3 Cr.
CE 216 Introduction to Structural Engineering. . 3 Cr.
CE 252 Introduction to Transportation
Engineering. . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
CE 317 Design of Reinforced Concrete Structures 3 Cr.
CE 318 Design of Steel Structures ............... 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.


Free Elective. Students are encouraged to select a course aligned with enhancing their life and/or career goals. It is recommended that the student select this course in consultation with their academic advisor.

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 Free Elective and Technical Elective. Courses GE 481-483 are graded S/U only.

Technical Elective. The Technical Elective requirement may be met by taking a course from an approved list of courses available from the department chair. Other choices may be made available by petition to the Civil Engineering Department.

Science Elective. The Science Elective requirement is met by taking a course from an approved list of courses available from the department chair.

## 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 312-313.

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 313-314 for Humanities and Social Science courses.

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 COURSES

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. Introduction to Computer-Aided Drafting. $0+3, \mathrm{Cr} .1$. This introductory course will provide students with a basic understanding of the features and consideration associated with the operation of a computer-aided drafting (CAD) system. Students will be introduced to drafting standards and practices in the context of a range of civil engineering disciplines.

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.

$2+3, \mathrm{Cr}$. 3. Study of the composition, production, properties, and behavior of structural materials such as aggregate, concrete, steel, and timber. Introduction to the use of standardized test methods and data analysis. Laboratory exercises include determination of aggregate properties, concrete mixture design, properties of hardened concrete, properties of ductile metals, and properties of clear wood. Written reports for laboratory exercises are required. Field trips may be required. Prerequisite or corequisite: CE 215; corequisite: CE 213.

CE 213. Technical and Professional Writing in Civil Engineering.
Cr. 1. Students will be introduced to technical writing in civil engineering, with a focus on laboratory reports, and to professional writing such as memoranda and business letters. Corequisite: CE 212.

CE 215. Mechanics of Materials.
Cr. 3. (Also offered as ME 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.

CE 216. Introduction to Structural Engineering. Cr. 3. An introduction to the behavior, analysis, and design of structures. Topics will include design criteria, loads, analysis of structural members and systems using classical hand methods and computer software, and design with various material types (e.g., steel, concrete, timber, masonry). Prerequisite: CE 215.

CE 252. Introduction to Transportation Engineering. Cr. 3. Topics include transportation system characteristics, transportation demand, transportation planning, transportation engineering studies, human and vehicle design factors, traffic flow and operations, signing and marking, and safety. While highway modes occupy a majority of the time due to their relative importance, other modes such as rail, air, and water will also be discussed. Prerequisite: CE 202.

## CE 281. Geology for Civil Engineers.

Cr. 3. A study of the structure of the Earth, including minerals, igneous, sedimentary, and metamorphic rocks. Also discussed are plate tectonics and its relationship to volcanoes, earthquakes, and mountain building. Upon completion of this course, students should be able to apply their knowledge of geology to civil engineering projects. Prerequisite: sophomore standing in the Civil Engineering Department or consent of the Chair of the Department.

## 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 317. Design of Reinforced Concrete Structures.

Cr. 3. Design of reinforced concrete members and structures. Topics will include the design of members for compression, flexure, and shear, deflections, bond and anchorage, and footings. Additional topics may include the design of oneway slabs and the design of reinforced concrete frames. ACI strength design methods are used. Prerequisite: CE 216.

## CE 318. Design of Steel Structures.

Cr. 3. Design of steel members and structures. Topics will include the design of members for tension, compression, flexure, and shear and the design of simple connections. Additional topics may include the design of composite members and the design of steel frames. LRFD methods are used. Prerequisite: CE 216.

## 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 water hydrology: hydrologic cycle, precipitation, evaporation, infiltration, runoff, rainfall-runoff relationships, uniform flow in open channels, stream flow measurements, hydrologic routing, hydrologic modeling, hydrologic probability, storm water management, storm sewer design, and applications. Prerequisite: CE 334.

## 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. Prerequisites: MATH 132 and CE 215.

CE 354. Design of Transportation Facilities.
Cr. 3. Infrastructure and associated needs for transportation facilities. Highway geometric design and the necessary design aids will be a major focus of the class, but other facilities will also be addressed, particularly rail and airport design. Other topics will include pavement design and the explicit incorporation of safety into the design process. Prerequisites: CE 151 and CE 252.

CE 364. Environmental Engineering I.
$3+3$, Cr. 4. Introductory study of water treatment and solid waste management practices common to urban 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. Corequisite: CE 334; prerequisite: CHEM 116.

## CE 365. Environmental Engineering II.

Cr. 3. Introductory study of physical, chemical, and biological processes for the treatment of domestic wastewater and the design of wastewater treatment unit operations, and an introduction to air pollution control practices. Prerequisite: CE 364 .

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. Advanced Structural Analysis.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 216.

## CE 418. Design of Masonry Structures.c

Cr. 3. Analysis and design of masonry structural system components. The use of appropriate specifications in design. Design projects may be required. Prerequisite: CE 216.

## CE 419. Prestressed Concrete. ${ }^{\text {c }}$

Cr. 3. Analysis and design of prestressed concrete members and structures. Topics will include flexural stresses, flexural strength, shear strength, loss of prestress, and deflections. Field trips may be required. Prerequisite: CE 317.

## CE 421. Geotechnical Aspects of Earthquake Engineering. ${ }^{\text {c }}$

Cr. 3. Causative mechanisms of earthquake, earthquake magnitudes, ground motion, effect of local soil conditions on motions. Response of soils to seismic loading, liquefaction phenomena and analysis of pore pressure development, laboratory and in-situ testing for seismic loading. Prerequisites: CE 202 and CE 320.

## CE 422. Advanced Soil Mechanics. ${ }^{\text {c }}$

Cr . 3. The behavior of soil examined from a fundamental soil perspective. Review of methods of testing to define soil strength and response for clays, sands, and silts; rationale for choosing shear strength and deformation parameters for soils for design application. Prerequisite: CE 320 .

## 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. ${ }^{\text {c }}$

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 456. Railroad Design and Operations.c

Cr. 3. Essential elements of railroad facility design and operations, with the objective of providing students with a more detailed understanding of railroad functions, design, construction, and operations. The design aspect of the course will include route location, track structure, design and construction of main lines and terminal facilities, maintenance-of-way operations such as
track inspection and right-of-way maintenance, railroad bridges and bridge loadings, and drainage requirements. The operations aspect of the course will include basic train handling, train operating characteristics, train makeup and types of trains, train dispatching, yard and terminal operations, and signaling. Prerequisite: CE 354.

## CE 457. Traffic Engineering. ${ }^{\text {c }}$

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 354.

CE 458. Urban Transportation Planning. ${ }^{\text {c }}$
Cr. 3. Fundamentals of urban transportation planning. Topics include the traditional 4 -step planning process, which includes trip generation, trip distribution, mode choice, and trip assignment, data collection and statistical techniques, aggregate and disaggregate modeling, transportation demand forecasting, interaction with land use and urban planning, short-term and long-term plans, traffic impact studies, and environmental studies. Prerequisite: CE 354.

## CE 459. Transportation Economics. ${ }^{\text {c }}$

Cr. 3. Introduces the basics of transportation economics. Topics include fixed costs, incremental costs, elasticities, direct and indirect costs, the application and impact of subsidies, economics of scale, economies of highway-, transit-, rail-, air-, and water-based transportation modes. Prerequisites: CE 354 and GE 301.

## CE 466. Hazardous Waste Management. ${ }^{\text {c }}$

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 467. Biological Wastewater Treatment. ${ }^{\text {c }}$

Cr. 3. This course covers biological treatment of domestic and industrial wastewaters for the removal of organics and nutrients. Kinetic expressions of biological growth and fluid transport through treatment reactors will be introduced. These concepts will be used to estimate reductions in organic and nutrient concentrations and design appropriate biological treatment processes. Corequisite: CE 364.

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. This course was offered for the final time in the Fall 2009 semester. Prerequisite: junior or senior standing.

## CE 490. Topics in Civil Engineering. ${ }^{\text {c }}$

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. Senior Design I: Project Planning and Management.

$2.5+1.5$, Cr. 3. An introduction to professional practice issues such as contracts, project proposals, and project management including scheduling, estimating, and project control. Student teams participate in the planning of an integrated and realistic civil engineering project. Knowledge gained in previous courses including ethical, legal, societal, multicultural, economic, financial, aesthetic, and environmental aspects will be integrated into the projects. The course may include field trips and/or lectures by practicing professionals. Oral and written reports are required. Prerequisites: GE 301 and senior standing or permission of the department chair.

## CE 494. Senior Design II: Project Development and Design.

$1+6, \mathrm{Cr}$. 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, economic, financial, aesthetic, and environmental aspects in the design. In addition, elements of management and communication are integrated. The course may include field trips and/or 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 E. Johnson (Chair), Kraft, Olejniczak, D. Tougaw; Associate Professors Budnik, Will.

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.
In the sophomore year students take foundation courses in analog circuits, digital circuits and programming. Computer-aided design tools and laboratories supplement the material taught in the classroom. During their junior year, students build on their foundation by studying electronics, linear systems and embedded microcontrollers. Students also participate in group design projects and are introduced to a variety of realistic design constraints including engineering ethics, safety, and economics. The senior year is anchored by an interdisciplinary capstone project where students begin a systematic study of the design process and apply the knowledge acquired in earlier courses. Projects require the consideration of realistic constraints, formal project management, the building and testing of a prototype, and thorough documentation.

The department supports a diverse set of laboratory facilities. The electronics laboratory supports work in digital and analog systems including power electronics. The digital systems laboratory is used for logic design, embedded microcontrollers and digital filtering systems. The scientific visualization laboratory serves as a research center for all engineering departments to develop applications for virtual reality to augment undergraduate education.

## 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 the following:

1. Our graduates will be highly sought and will be recognized as having expertise in electrical engineering.
2. Our graduates will demonstrate a lifelong commitment to expanding their professional expertise.
3. Our graduates will be excellent communicators and highly effective team members and leaders.
4. Our graduates will demonstrate character and values by making ethical decisions throughout their professional careers.
5. In pursuing their vocation, our graduates will strive for the betterment of society.
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 Calculus I . . . . . . . . . . . . . . . . . . . . . . . . 4 Cr.
MATH 132 Calculus II . . . . . . . . . . . . . . . . . . . . . . . 4 Cr.
MATH 253 Calculus III. . . . . . . . . . . . . . . . . . . . . . . 4 Cr.
MATH 260 Linear Systems and Matrices. . . . . . . 1 Cr.
MATH 270 Ordinary Differential Equations. . . . 3 Cr.
KIN 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, Waves3 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 . ......... . 2 Cr.
GE 199 Engineering Seminar . . . . . . . . . . . . . . . . . 0 Cr.
GE 301 Financial and Ethical Decisions in
Engineering. ............................... . 3 Cr.
GE 497 Senior Design Project I. . . . . . . . . . . . . . . . 3 Cr.
GE 498 Senior Design Project II . . . . . . . . . . . . . . . 3 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 Engineering Programming I. . . . . . . . . . 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 . . . . . . . . . . . . . . . . 6 Cr.
Professional Electives . . . . . . . . . . . . . . . . . . . . . . . 6 Cr.
Electrical Engineering Electives.................. 15 Cr .
Total required for graduation. . . . . . . . . . . . . . 127 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. All courses are graded S/U only.

Electrical Engineering Electives. Fifteen credits must be taken by choosing five of the following nine courses: ECE 252, 424, 429, 450, $452,453,460,471$, 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 312-313.

## 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 313-314 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, 260, or 270; Chemistry: Any courses numbered 115 and above; Mathematics: Any courses numbered 264 and above; MET 216; ECE 357; PHYS 142L, 243, 245, 250, 360, 371, 372, $381,421,422,430,430 \mathrm{~L}$, 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. A current listing of approved professional electives is available online. Other choices may be made available by petition to the ECE Department.

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 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 the following:

1. Our graduates will be highly sought and will be recognized as having expertise in computer engineering.
2. Our graduates will demonstrate a lifelong commitment to expanding their professional expertise.
3. Our graduates will be excellent communicators and highly effective team members and leaders.
4. Our graduates will demonstrate character and values by making ethical decisions throughout their professional careers.
5. In pursing their vocation, our graduates will strive for the betterment of society.
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 Calculus I . . . . . . . . . . . . . . . . . . . . . . . . 4 Cr.
MATH 132 Calculus II . . . . . . . . . . . . . . . . . . . . . . . 4 Cr.
MATH 253 Calculus III. . . . . . . . . . . . . . . . . . . . . . . 4 Cr.
MATH 260 Linear Systems and Matrices. . . . . . . 1 Cr.
MATH 270 Ordinary Differential Equations. . . . 3 Cr.
KIN 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, Waves3 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 . . . . . . . . . 2 Cr.
GE 199 Engineering Seminar . . . . . . . . . . . . . . . . . 0 Cr.
GE 301 Financial and Ethical Decisions in
Engineering. . . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
GE 497 Senior Design Project I. . . . . . . . . . . . . . . . . 3 Cr.
GE 498 Senior Design Project II . . . . . . . . . . . . . . . 3 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 Engineering Programming I . ......... 3 Cr.
ECE 252 Engineering Programming II . . . . . . . . . 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 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.
ECE 452 Digital Signal Processing. . . . . . . . . . . . . 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 Electives . . . . . . . . . . . . . 12 Cr .
Total required for graduation. . . . . . . . . . . . . . 127 Cr .
Computer Engineering Electives. Twelve credits must be taken by choosing one of the following courses: CS 225, 230, 250, 260, 325, $330,335,345,358,365,372$, ECE 341, 429, or 450. Other courses may be used to satisfy this requirement with the approval of the department faculty.

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. All courses are graded S/U only.

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 312-313.

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 313-314 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, 260, or 270; Chemistry: Any course numbered 115 and above; Mathematics: Any course numbered 264 and above; MET 216; PHYS 142L, 243, $245,250,360,371,372,381,421,430,430 \mathrm{~L}$ 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. A current listing of approved professional electives is available online. Other choices may be made available by petition to the ECE Department.

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, 424, and 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. Fundamentals of Electrical and Computer Engineering.
Cr. 2. An introductory course emphasizing basic analog and digital circuit analysis and design. Topics include DC and AC circuits and combinational and sequential logic. Corequisite: enrollment in the College of Engineering and MATH 131 or approval of the Department Chair.

ECE 111. Fundamentals of 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.

$2.33+2$ or $2+3$, Cr. 3. (Also offered as CS 156.) A study of the 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.

## ECE 251. Engineering Programming I.

$2.33+2$, Cr. 3. A study of the fundamental programming constructs, algorithms, and data structures using industry-standard software. 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 251 and CS 157.

## ECE 252. Engineering Programming II.

$2.5+1.5$, Cr. 3. A continuation of ECE 251 with emphasis on implementating abstract data types and standard algorithms using industry-standard programming languages, with applications to contemporary engineering problems. Topics include the implementation of linked lists, queues, trees, stacks, sets, and sorting algorithms, such as quick sort, merge sort, and bucket sort. Students are also introduced to object orientation. Prerequisite: CS 157 or ECE 251 . Students cannot receive credit for both ECE 252 and CS 158.

ECE 261. Linear Circuit Theory I.
$2.5+1.5$, Cr. 3. (Also offered as PHYS 281.) A study of the fundamental methods and theorems of
electric circuit analysis. Topics include steadystate and transient analysis of DC and AC circuits containing resistors, capacitors, inductors, and operational amplifiers. Prerequisite: MATH 131.

## 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.
Cr.2.5. A study of the fundamental methods and theorems of electrical circuit analysis. Topics include steady-state and transient analysis of DC and AC circuits containing resistors, capacitors, inductors, and operational amplifiers. Students cannot receive credit for both ECE 261 and ECE 281. 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.
$2.5+1.5, \mathrm{Cr}$. 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.

$2.5+1.5, \mathrm{Cr} .3$. An introduction to semiconductor theory and the design and analysis of electronic circuits. Topics include diodes, field-effect and bipolar transistors, CMOS logic circuits, singlestate discrete transistor amplifiers, and multistage integrated-circuit amplifiers. Prerequisite: ECE 261 with a minimum grade of $C$.

ECE 341. Electronics II.
$2.5+1.5, \mathrm{Cr}$. 3. Topics include power amplifiers, DC power supplies, data converters, feedback, oscillators, switched-capacitor circuits, and transistor memory units. Prerequisite: ECE 340.

## ECE 357 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 logic; sets; functions; order notation; proof techniques, including mathematical induction; elementary counting
techniques; iterative and recursive algorithms; elementary complexity analysis and applications. Prerequisite: ECE 250 or ECE 251; corequisite: MATH 131.

## 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 $C$ and MATH 260 or 270.

## ECE 365. Probability and Statistics for Electrical and

 Computer Engineers.Cr . 3. Introduction to the fundamental principles of probability and statistics as applied to engineering applications. Emphasis is placed on sampling, random variables, probability distributions, confidence intervals, hypothesis testing, linear regression, and analysis of variance (ANOVA) techniques. Prerequisite: 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 with a minimum grade of C .

## 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 tradeoff are studied. Prerequisite: ECE 221; corequisite: ECE 340. Typically offered in the spring semester of even numbered years.

## 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 222. Typically offered in the spring semester of odd numbered years.

## ECE 452. Digital Signal Processing.

$2.7+1, \mathrm{Cr}$. 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, and PCM are investigated and related to their channel requirements. Prerequisite: ECE 360; corequisite: ECE 365. Typically offered in the spring semester of even numbered years.

## 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. Typically offered in the spring semester of even numbered years.

## ECE 471. Power Electronics.

$2.7+1, \mathrm{Cr} .3$. A course in the application and design of power semiconductor circuits. Topics include rectifiers, AC controllers, inverters and switchedmode power supplies. Prerequisite: ECE 262.

ECE 472. Power Transmission and Distribution. $2.5+1.5, \mathrm{Cr}$. 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. Typically offered in the spring semester of odd numbered years.

## 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

Professor Palumbo; Associate Professors Duncan, P. Johnson (Chair), Sevener; Assistant Professors Goehler, Nudehi.

Mission. The Mechanical Engineering Department provides a program of professional studies grounded in engineering fundamentals and arts and sciences and 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. Our graduates will have a vocation.
2. Our graduates will demonstrate growth or advancement in their chosen vocation.
3. Our graduates will contribute to society through their endeavors in their chosen vocation.
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 four primary laboratory facilities within the department, and these facilities are home to the eight different laboratory experiences within the program. 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. Additional laboratory facilities support senior design projects and computational assignments.

The Energy Systems Suite includes the Mechanical Measurements Laboratory, the Small Engines Laboratory, and the Engine Test Cell. This facility provides the opportunity to study the laws governing energy transformations due to energy transport as work and heat. The space also enables the students to learn the science of experimental methods by working with state-of-theart measurement equipment, calibration techniques, and computer data acquisition. This facility includes laboratory equipment such as an internal combustion engine, a gas turbine, a supersonic nozzle, a solar collector, a heat pump, and a wind tunnel.

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 Computer Numerical Control (CNC) machine tools.

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 Analog Circuits, Automatic Control, and Vibrations Laboratory supports instruction in the study of mechanical and electrical systems. For example, the facility is used to control experiments with simulated process systems and the associated instrumentation to control these processes. It also 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.
KIN 100 Healthy Lifestyles . . . . . . . . . . . . . . . . . . . 1 Cr.
MATH 131 Calculus I . . . . . . . . . . . . . . . . . . . . . . . . 4 Cr.
MATH 132 Calculus II . . . . . . . . . . . . . . . . . . . . . . . 4 Cr.
MATH 253 Calculus III. . . . . . . . . . . . . . . . . . . . . . . 4 Cr.
MATH 260 Linear Systems and Matrices. . . . . . . . 1 Cr.
MATH 270 Ordinary Differential Equations. . . . 3 Cr.
PHYS 141 Newtonian Mechanics . . . . . . . . . . . . . 3 Cr.
PHYS 141L Experimental Physics I. . . . . . . . . . . . 1 Cr.
PHYS 142 Electricity, Magnetism and Waves . . . 3 Cr.
STAT 240 Statistical Analysis . . . . . . . . . . . . . . . . 3 Cr.
THEO 200 The Christian Tradition. . . . . . . . . . . . 3 Cr.
Foreign Language/Diversity Elective. . . . . . . . .3-4 Cr.
Humanities, Social Science, Theology Electives . 6 Cr.
Math/Science Elective .......................... . 3 Cr.
GE 100 Fundamentals of Engineering .......... 2 Cr.
GE 109 Mechanics-Statics . . . . . . . . . . . . . . . . . . . . 3 Cr.
GE 199 Engineering Seminar . . . . . . . . . . . . . . . . . 0 Cr.
GE 301 Financial and Ethical Decisions in
Engineering. . . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
GE 497 Senior Design Project I. . . . . . . . . . . . . . . . 3 Cr.
GE 498 Senior Design Project II . . . . . . . . . . . . . . . . 3 Cr.
ECE 281 Fundamentals of Electrical
Engineering. . . . . . . . . . . . . . . . . . . . . . . . . . 2.5 Cr .
ME 104 Computer-Aided Design . . . . . . . . . . . . . 2 Cr.
ME 125 Computer Programming for
Mechanical Engineers . . . . . . . . . . . . . . . . . . 1 Cr
ME 201 Technical Writing for
Mechanical Engineers . . . . . . . . . . . . . . . . 1 Cr
ME 209 Mechanics-Dynamics .................. 3 Cr.
ME 215 Mechanics of Materials . . . . . . . . . . . . . . . 3 Cr.
ME 252 Materials Science . . . . . . . . . . . . . . . . . . . . 3 Cr.
ME 253 Introduction to Manufacturing
Laboratory. . . . . . . . . . . . . . . . . . . . . . . . . . 0.5 Cr.
ME 261 Analog Circuits Laboratory . . . . . . . . . . 0.5 Cr.
ME 333 Mechanical Measurements Laboratory . 4 Cr .
ME 353 Manufacturing Processes . . . . . . . . . . . . 3.5 Cr.
ME 362 Mechanisms . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
ME 364 Vibrations . . . . . . . . . . . . . . . . . . . . . . . . . . 2 Cr.
ME 370 Thermodynamics I. . . . . . . . . . . . . . . . . . . . 3 Cr.
ME 373 Fluid Mechanics. . . . . . . . . . . . . . . . . . . . . 3 Cr.
ME 374 Heat Power Laboratory . . . . . . . . . . . . . . . 1 Cr.
ME 376 Heat Transfer . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
ME 405 Finite Element Analysis . . . . . . . . . . . . . . 2 Cr.
ME 444 Automatic Control. . . . . . . . . . . . . . . . . . . . 2 Cr.
ME 463 Machine Design I. . . . . . . . . . . . . . . . . . . . 3 Cr.
ME 470 Thermodynamics II . . . . . . . . . . . . . . . . . . 3 Cr.
Mechanical Engineering Electives . . . . . . . . . . . . . . 9 Cr.
Total required for graduation. . . . . . . . . . . . . . 128 Cr .
Cooperative Education. Courses GE 481-483 are graded S/U only.

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 312-313.

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 313-314 for Humanities and Social Science courses.

Mathematics/Science Elective. This elective requirement may be met with a course from

Biology, Chemistry, Computer Science, Mathematics, Meteorology, or Physics. A list of courses that fulfill the requirement is available in the Chair's office.

Mechanical Engineering Electives. Nine 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 ": (...) ${ }^{\mathrm{m}}$.

Mechanical Engineering Minor. A minor in mechanical engineering is available for students majoring in civil, computer, or electrical engineering. A minimum of 18 credit hours is required. Courses must include GE 109, ME 209, and ME 370. The remaining credits must be from ME courses at the 200 level or above. ECE 460 may be taken in place of ME 444. Credit may not be received for both ME 215 and CE 215.

## MECHANICAL 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.

## ME 104. Computer-Aided Design.

Cr. 2. 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 course focuses on 3-D modeling strategies including line drawings, solid modeling, and parametric modeling using computer-aided design software. Prerequisite: enrollment in the College of Engineering or consent of the Department Chair.

ME 125. Computer Programming for Mechanical Engineers.
Cr. 1. Introduction to writing computer code to solve mechanical engineering problems. The use of MATLAB as a programming language is developed. Prerequisite: enrollment in the College of Engineering or consent of the Department Chair.

ME 201. Technical Writing for Mechanical Engineers. Cr. 1. An introduction to technical writing in mechanical engineering. Common technical formats such as reports, email, and memorandums will be covered. Topics include outlining, figure and table development, paragraph and sentence development, and overall communication of technical matter. Corequisite: ME 209.

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 215. 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 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. Prerequisites: MATH 132 and CHEM 115 or CHEM 121.

ME 253. Introduction to Manufacturing Laboratory. $0+1.5$, Cr. 0.5 . A laboratory experience in manual machine shop operations including shop safety, inspection, operation planning, and metal cutting. Prerequisite: ME 104.

## ME 261. Analog Circuits Laboratory.

$0+1.5$, Cr. 0.5 . Seven laboratory experiences will introduce AC and DC analog circuit analysis. Students will design, build, and analyze electrical circuits. Corequisite: 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. Prerequisites: CORE 110 and PHYS 142; corequisite: (ME 125 or ME 225), ECE 250, or ME 370.

## ME 353. Manufacturing Processes.

$3.73+0.8$, Cr. 4. Descriptive and analytical treatment of manufacturing processes and production equipment. Topics include metal forming, metal cutting, plastic fabrication, Statistical Process Control (SPC), and Computer

Numerical Control (CNC). This course will be offered in the Fall 2012 Semester for the final time. Prerequisites: ME 125, ME 215, and ME 252; corequisite: ME 253.

## ME 353. Manufacturing Processes.

$3+1.5, \mathrm{Cr} .3 .5$. Descriptive and analytical treatment of manufacturing processes and production equipment. Topics include metal forming, metal cutting, plastic fabrication, Statistical Process Control (SPC), and Computer Numerical Control (CNC). This course will be offered beginning in the Spring 2014 Semester. Prerequisites: ME 125, ME 215, and ME 252; corequisite: ME 253.

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 with a grade of C or better, and (ME 125 or ME 225); corequisite: MATH 253.

ME 363 (formerly ME 463). Machine Design I. Cr. 3. The application of specialized topics in mechanics of materials to the design and analysis of machine elements. Topics include combined stress, contact stress, stress concentration, fatigue, deflection, and theories of failure. Stress principles are applied to springs, bolts, joints, and general machine elements. Credit may not be received for both ME 363 and ME 463. This course will be offered beginning in the Fall 2013 Semester. Prerequisite: ME 104, (ME 125 or ME 225), and ME 215.

## ME 364. Vibrations.

Cr. 2. Fundamentals and principles of mechanical vibration. Mathematical formulation of the equations of motion for single and multidegree of freedom systems. Analysis of natural frequency, damped natural frequency, free and forced vibration of mechanical systems. This course will be offered beginning in Spring 2014. Credit cannot be received for both ME 364 and ME 462. Prerequisites: ME 209 with a grade of C or better, (ME 125 or ME 225), ME 215, MATH 260, and MATH 270.

ME 364L. Vibrations Laboratory. ${ }^{\text {m }}$ $0+0.5, \mathrm{Cr} .0 .5$. Experimental modal analysis of mechanical systems. Estimation of natural frequencies, mode shapes, and structural damping for various structures. Experimental determination of frequency response functions. This course will be offered beginning in the Spring 2014 Semester. Credit cannot be received for both ME 364L and ME 462. Corequisite: ME 364.

ME 370. 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 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 with a grade of C or better.

## 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 333, ME 370, 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 370.

## ME 405. Finite Element Analysis.

Cr. 2. Finite element methods for analysis of steady-state and transient problems in solid, structural, fluid mechanics, and heat transfer. Presents finite element methods and solution procedures for linear problems. Modeling of problems and interpretation of numerical results. Prerequisites: ME 104, (ME 125 or ME 225), ME 215, MATH 253, MATH 260, MATH 270, and ME 373.

ME 444. Automatic Control.
$2.5+1.5$, 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. This course will be offered in the Fall 2013 Semester for the final time. Prerequisites: ME 333 and MATH 234.

## ME 444. Automatic Control.

Cr. 2. 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. This course will be offered beginning in the Fall 2014 Semester. Prerequisites: ME 333, MATH 260, and MATH 270.

ME 444L. Automatic Control Laboratory. ${ }^{\text {m }}$ Cr. 0.5. A laboratory experience in the process of modeling and identification, controller design, and closed-loop implementation for various mechanical, electrical and electro-mechanical systems. This course will be offered beginning in the Fall 2014 Semester. Corequisite: ME 444.

## ME 452. Mechanical Behavior of Materials. ${ }^{\text {m }}$

Cr.3. An introduction to the deformation and fracture behavior of metals, ceramics, polymers, and composites. Topics include yielding criterion, plastic deformation, strain hardening, strengthening mechanisms, viscoelasticity, fatigue, fracture, creep, and microstructure/ mechanical property relationships. Prerequisites: ME 215, ME 252.

## ME 455. Advanced Manufacturing. ${ }^{m}$

$2.5+1.5, \mathrm{Cr} .3$. A study of the application of Computer-Aided Design/Computer-Aided Manufacturing (CAD/CAM), robots, Computer Numerical Control (CNC) machine tools, machine controllers, automatic data capture systems, group technology, and material handling to the design of manufacturing systems. Laboratory experiments provide an in-depth investigation of CAM software and CNC machining techniques. Prerequisite: ME 353.

## ME 460. Spatial Manipulators. ${ }^{\text {m }}$

Cr. 3. An application of linear algebra, trigonometric techniques, and kinematic principles to study the motion of spatial mechanisms. The course will examine various types of manipulators that range in complexity from simple two-degree-of-freedom planar robots to the human arm. Prerequisites: (ME 125 or ME 225), ME 209, MATH 260, and MATH 270.

## ME 462. Vibrations. ${ }^{\text {m }}$

$2.5+1.5$, Cr. 3. Single and multiple degree of freedom systems are analyzed with regard to natural frequencies, free, forced, and damped vibrations. Experimental model analysis techniques are introduced. Credit may not be received for both ME 362 and ME 462. This course will be offered for the final time in the Spring 2014 Semester. Prerequisites: ME 209 with a grade of C or better, MATH 260, MATH 270, (ME 125 or ME 225), and ME 215.

ME 470. Thermodynamics II.
Cr. 3. Continuation of ME 370. Topics include combustion principles and cycle optimization using the second law of thermodynamics. Prerequisites: ME 370 and CHEM 115.

ME 475. Advanced Topics in Thermodynamics and Heat Transfer. ${ }^{\text {m }}$
Cr. 3. Topics may include a continuation of material in ME 376 such as advanced conduction, convention, 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 370, ME 373, and ME 470; corequisite: ME 376. ME 470 prerequisite can be waived with instructor approval.

## ME 476. Advanced Topics in Fluid Mechanics. ${ }^{\text {m }}$

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 370 and ME 373; corequisite: ME 376.

ME 490. Topics in Mechanical Engineering. ${ }^{\text {m }}$
Cr. 0.5-3. 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. 0.5-3. 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.


Photo courtesy of William Liu, '12

## COLLEGE OF NURSING



Janet M. Brown, Ph.D., Dean

Professors J. M. Brown, T. Kessler, Mauk, Pepa, Schmidt; Associate Professor Genovese; Assistant Professors Brandy, Cory, Zentz; Adjunct Assistant Professors S. Adams, Alverson, Bleza, Cavinder, Daw, Koch, Kurtz, Lemley, Migler, Nesius, Rayman, Slack.

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.
R.N. students enrolled in the R.N.-M.S.N. program may complete the B.S.N. and M.S.N. 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 B.S.N., accelerated B.S.N., R.N.-B.S.N., and R.N.-M.S.N. plans of study are in Valparaiso University's Student Guide to University Life.

Mission. The mission of Valparaiso University College of Nursing at the undergraduate and graduate levels is to prepare 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. Nursing practice incorporates the four metaparadigm concepts: nurse, person, health, and environment. These four components are interconnected in a dynamic, ever-changing milieu.

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 B.S.N. 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, policy, 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 64 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 325 Nursing Care of the Childbearing Family . . . . . . . . . . . . . . . . . . 5 Cr.
NUR 341 Psychiatric Mental Health Nursing . . . 5 Cr .
NUR 351 Gerontological Nursing . . . . . . . . . . . . . 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 for Evidence-Based Practice . . . . . . . . . . . . . . . . 3 Cr.
NUR 418 Global Health Issues. . . . . . . . . . . . . . . . 3 Cr .
NUR 425 Nursing Care of the Childrearing 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 48 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 300-Level Course. ..... 3 Cr .
KIN 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 KIN 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 R.N.-B.S.N. degree program if they are licensed as a registered nurse in Indiana. Registered nurses are eligible for admission to the R.N.-M.S.N. 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, and current CPR certification or recertification. A criminal background check and a negative drug screen are required when beginning the first nursing course. 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 $\left(^{*}\right.$ ) 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 $\$ 670$, 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.
$2+2, \mathrm{Cr} .4$. 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.
$2.5+0.5, \mathrm{Cr}$. 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. Prerequisites for nursing students: NUR 201 and 203.

## NUR 275. Transition to Professional Nursing.

 Cr. 4. 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. A community health education project is required. Prerequisite: licensed as an R.N..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 325. Nursing Care of the Childbearing Family.
$3+2, \mathrm{Cr} .5$. 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. Gerontological Nursing.

$2.5+0.5, \mathrm{Cr}$. 3. This course focuses on gerontological nursing. Theories and various dimensions of aging are discussed. Normal biological aging, attitudes towards aging, health issues facing the elderly, and nursing interventions to promote quality care for older adults will be explores. Service learning activities will promote a holistic understanding of the aging process.

## 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.

## NUR 360. Interprofessional Service Learning in Health in Central America.

$1+2$. Cr. 3. This course focuses on the application of principles from international health, public health, and community-based participatory action to population-based health care services in rural Central America. Emphasis is placed on assessing, diagnosing, planning, and evaluating health and implementing strategies at all levels of prevention during this service learning experience. As a member of an interprofessional health care team, students will explore the roles of public health professionals in collaboration with local care providers in the provision of services to disparous populations. Maybe used
to fulfill Cultural Diversity course component of the General Education requirements. Corequisite: must attend the service learning trip to Central America.

## 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 $\mathrm{S} / \mathrm{U}$ 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 for

 Evidence-Based Practice.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. 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 junior standing or above. May be used to fulfill the Cultural Diversity course component of the General Education requirements.

NUR 425. Nursing Care of the Childrearing Family. $3+2, \mathrm{Cr}$. 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 458. Complex Health Care Needs of Adults. $2.5+1.5, \mathrm{Cr}$. 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.

$3.5+1.5, \mathrm{Cr}$. 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.

$1+4, \mathrm{Cr} .5$. 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.

## Health Care Leadership

Professor Pepa; Associate Professor Genovese; Assistant Professor Cavinder, Cory, Rayman.

The Health Care Leadership degree prepares students to be health care leaders by providing theoretical and experiential learning focused on critical knowledge associated with setting vision, guiding change, leading teams and inspiring people within health care.

Once admitted, students take 52 credits culminating in a five-credit experience in a health care organization in the local community. Courses focus on the knowledge domains
identified in the National Center for Healthcare Leadership competency model: communication, leadership, professionalism, knowledge of the health care environment and stimulating the change process.

Purpose and Objectives. The purpose of the Health Care Leadership degree is to develop graduates who will function in diverse leadership positions within varied health care environments. The B.S. in Health Care Leadership graduate will:

1. Demonstrate proficiency in the knowledge and skills required for positions of professional leadership in the health care industry.
2. Characterize leadership skills of serviceminded, purpose driven, ethical decisionmaking, empowering individuals and visionary perspectives.
3. Appreciate how the environmental influences of culture, economics, ethics, law, policy and technology impact the intersection of individuals within the health care industry.
4. Promote the health of persons in dynamic health care environments.
Major. A minimum of 52 credits in Health Care Leadership constitutes a major.

Degree. Completion of the requirements of the Health Care Leadership degree leads to a Bachelor of Science in Health Care Leadership.

Graduation Requirements. In order to realize its objectives, the College holds the students in the HCL degree program to the following requirements:
A. Health Care Leadership. A total of 52 credit hours from Health Care Leadership are required.

B. Arts and Sciences. A minimum of 48 credit hours from the College of Arts and Sciences is required. 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 300-Level Course . . . . . . . . . . . . . . . . . . . . . 3 Cr.
KIN 100 Healthy Lifestyles . . . . . . . . . . . . . . . . . . . 1 Cr.
Humanities Elective . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
CHEM 111 Introduction to 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 Health Care Leadership and Arts and Sciences listed previously, the student must complete 9 credits from ECON 136, ECON 210, ECON 221, ECON 222, ECON 233, GEO 201, GEO 280, GEO 321, GEO 420, PHIL 130, POLS 120, POLS 130, POLS 361, PSY 235, SOC 210, SOC 220, SOC 245, SOC 260, SOC 270, SOC 275, SOC 327, BLAW 104, MGT 100.

In addition, the student must complete 15 credits of open electives to bring the total number of credit hours to 124 .

## D. Requirements for Admission to the

 College of Nursing. The general requirements for admission to the University are found on pages 252-254 of this catalog.E. Progression. A 2.0 cumulative GPA is required to progress in the program.

HCL 103. Historical Perspectives in Health Care.
Cr. 3. Introduces the history of health care in its social context, from the 18th century to present day. The class will explore health care system evolution in the context of patient/practitioner relationships, examine changing ideas concerning health, sickness and disease, chart the changes in health care and health care education.

HCL 105. Fundamentals of Health Care Leadership.
Cr .3 . An overview of the scope of leadership styles necessary for effective outcomes in various health care environments. Examines the role of the healthcare leader in promoting an environment that allows for the well-being of both the individual and the organization. Learners identify, interpret and analyze their individual leadership attitudes, abilities, styles and strengths.

## HCL 121. Environment and Health.

Cr. 3. Explores health and environmental controversies from the dual perspectives of scientific uncertainty and mass media coverage.

Examines genetic engineering, biotechnology, environmental health risks and human behavior. Includes discussion of ethical and social responsibilities from a healthcare system perspective.

HCL 153. Communication Process in Health Care Leadership I.
Cr. 4. Introduces the communication process as related to health care organizational settings. An emphasis will be placed on the examination of interpersonal interjection of dyads and groups. Also focuses on listening skills, decision making and conflict resolution processes in profit and nonprofit health care systems. Exploration of the practices, skills and tools necessary to focus on the leader as the communication champion. Prerequisite: HCL 105.

HCL 211. Principles of Health Care Supervision. Cr. 3. Identifies supervision as a component in the leadership process of the organizational context of healthcare. Developmental experiences of supervision and leadership are incorporated into class simulations, exercises and other healthcare scenarios. Prerequisite: HCL 105.

HCL 213. Social, Behavioral, and Cultural Factors in Health Care Leadership.
Cr. 3. Investigates the racial, ethnic, gender and generational disparities that create sociocultural barriers in the healthcare management system. Focuses on the need for health care industry leaders to be culturally competent to lead a diverse work group.

HCL 233. Educational Delivery in Health Care. Cr. 3. Examines educational forces shaping global and personal perspectives throughout the world. Includes trends in technology, economics, politics, culture and religion as related to worldwide education delivery that shapes global and personal health care perspectives.

HCL 255. Communication Process in Health Care Leadership II.
Cr. 4. Explores the societal impact of the communication process on health care programs and policies. Topic discussion will include the communicative process as used in the developmental approach to health care initiatives; public sector plans; managed care; the employersponsored system; medically uninsured; and health care vested interest groups. Prerequisites: HCL 153 and 211.

## HCL 301. Health Care Strategic Planning.

Cr. 3. Examines key concepts of health care strategic planning. Identifies marketing strategies and strategic planning for fiscal managements, such as supply-demand markets, cost containment strategies and operational budgets as they relate to the health care industry.

HCL 302. Health Care Ethics and Legal Issues.
Cr. 3. Examines the coming wave of ethical issues related to mastery of the human genome and medical technology, which may dramatically extend quality and length of life. Legal focuses will include liability crisis issues, labor relations, contracts, health insurance issues, employment contracts and current legal issues affecting the health care leader.

## HCL 303. Health Care Management Information

 Systems.Cr. 3. Investigates information technology and its managerial applications in health care organizations. Management of the development process, the organizational flow of information, database management concepts, evaluation, selection and strategic uses of information systems as well as security, audit and control of data are discussed. Health care specific case studies will be used, covering topics such as HIPAA (Health Insurance Portability and Accountability Act) and electronic medical records.

## HCL 304. Introduction to Epidemiology.

Cr . 3. Provides an introduction to epidemiologic methods and concepts as used in public health practice and research. Examines documentation of variation in disease occurrence in different populations, rates and their uses to infer varying degrees of causality, bias and study design.

## HCL 415. Introduction to Research in Health Care.

Cr. 3. Describes the systematic steps of the research process. Introduces approaches, frameworks and concepts used in investigating health care problems. Emphasizes integration of research findings to establish evidence-based health care practices.

HCL 418. Global Health Care Systems.
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.

## HCL 470. Health Care Leadership Strategies.

Cr. 3. Emphasizes essential health care leadership competencies by focusing on communication, collaboration, change mastery and conflict resolution. Focuses on organizational structures and systems, leading change and innovation, development of values-based cultures, the art of successful acquisition approaches, centralized and decentralized management and leadership styles. Provides opportunity to discover one's own leadership abilities with respect to each of the discussed competencies.

HCL 480. Health Care Leadership Practicum.
Cr. 5. Provides experiential opportunities to demonstrate professional behaviors. The practicum course is designed to explore the role of health care leader in an organizational or community setting. Students collaborate with faculty and preceptors to examine the role of the healthcare leader.


## 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 45).

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.

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 60), American Studies (page 61), Chinese and Japanese Studies (page 75), Environmental Science (page 98), International Economics and Cultural Affairs (page 123), International Service (page 125), Modern European Studies (complementary major only, page 141), Theology and Ministry (complementary major only, page 183).

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

Administration. This minor is administered by the Department of Mathematics and Computer Science in consultation with the appropriate departments within the College of Arts and Sciences and the professional colleges.

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.
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.

Students in the minor must complete the following courses:
One of the following: . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
STAT 140 General Statistics
STAT 240 Statistical Analysis
PSY 201 Statistical Methods
IDS 205 Business Statistics
ECE 365 Probability and Statistics for Electrical and Computer Engineers
One of the following: .
3 Cr .
STAT/IDS 340 Statistics for Decision Making ECON 325 Econometrics
Three courses from one or two of the
following groups . . . . . . . . . . . . . . . . . . . . . . . . .6-7 Cr.

1) STAT/IDS 340 OR ECON 325 not taken from above
2) One of the following . . . . . . . . . . . . . . . . 3 Cr POLS 260 Research Methods in Political Science PSY 202 Research Methods in Psychology SOC 320 Research Methods in Sociology
3) One to three of the following. . . . . . . . 3-10 Cr. ECON/STAT 493 Seminar in Applied Statistics STAT 341 Probability STAT 342 Mathematical Statistics
STAT 343 Time Series Analysis
STAT 344 Applied Probability and Statistical Decision Theory
CE 202 Statistical Applications in Civil Engineering
CS 325 Simulation and Modeling GEO 415 Advanced Geographic Information Systems GEO/MET 460 Data Analysis IDS 320 Management Science
Total $.15-16 \mathrm{Cr}$.

Actuarial Science majors may only use IDS/ STAT 340 or ECON 325 to fulfill the minor requirements if the course is not used to fulfill actuarial science requirements. Actuarial Science majors may not use STAT 341, 342, or 344 to fulfill the minor requirements.

## Business Administration Minor

Administration. This program is administered by the College of Business.

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

Fundamentals of 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 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.
Note: MATH 122 or 124 or 131 is a
prerequisite for IDS 205. STAT/IDS 340 may be substituted for IDS 205.

## Environmental Studies Minor

Administrative Committee: Professors Arkkelin (Psychology); Associate Professors Aljobeh (Civil Engineering), Eberhardt (Biology), Ganesh-Babu (Geography and Meteorology), Longan (Geography and Meteorology, Chair), G. Morris (Physics and Astronomy), 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 16 credit hours is required to complete this minor.

Environmental Studies Core (3 Cr.): Take BIO 250 or GEO 260.

Environment and Society Elective ( 3 Cr .): Take one course from GEO 321, ECON 210 , PSY 355 , or any new or topic course approved by the chair of the Environmental Science administrative committee.

Environmental Meanings and Values
Elective (3 Cr.): Take one course from GEO 475, PHIL 230, or any new or topic course approved by the chair of the Environmental Science administrative committee.

Environmental Studies Electives (6-7 Cr.):
Take two courses from BIO 172, 350, 440, ECON 210, ENVS 340, GEO 385 (when an environmental field study), MET 240, 440, PHIL

230, and any new or topic course approved by the chair of the Environmental Science administrative committee.

Capstone Experience ( 1 Cr .): Take one of ENVS 381, 386, 495, or 499.

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 Professor 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.

## 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 .
THEO 333 Black Theology and Black Church. . . 3 Cr.
THEO 349 Topics in Religious Ethics (when topic is appropriate) ..................... 3 Cr .
THEO 364 Native American Religions. . . . . . . . . 3 Cr.
Additional courses for the minor will consist of topics courses and departmental seminars, each of which must be approved and will be publicized by the administrative committee. Students wishing to use a course not listed must have the course approved by the administrative committee prior to enrolling in the course. No more than one course at the 100 level may apply towards the minor. At least two of the courses applying towards the minor must be at the 300 level or above.

## Film Studies Minor

Administrative Committee: Professors Byrne (English), Juneja (English), Sponberg (English).

Objectives. The Film Studies Minor offers an opportunity to discover the place and significance of an important twentieth century art which has also been a social force. Film can be studied for its artistry, its historical development, its influence on human perceptions of the world and its relation to such subjects as national cultures, technology, politics, mass media, theater and religion. The minor in Film Studies allows the small scale but concentrated study of one important art, and through it, modern times.

Requirements. At least 15 credit hours in film studies courses constitute a minor. The requirements include:
ENGL 231 Film Aesthetics . . . . . . . . . . . . . . . . . . . 3 Cr. At least one course from each of the following three areas. . . . . . . . . . . . . . . . . . . . . . . . . . . 9 Cr . Film and Literature Film and Society History of Film

A second course from one of these three areas may be counted toward the minor. Other options include a special topics course (e.g., Film and Religion) approved by the Chair of the Committee.

Film and Literature Area. Offered by the Department of English and the Department of Foreign Languages and Literatures: ENGL 390, FLF 250, FLGR 250, FLS 250. These are special topics courses which from time to time offer appropriate topics, such as Shakespeare on Film, The Novel and Film, Storytelling in Film and Literature. These courses scrutinize both similarities and differences in the handling of a theme and show how literary analysis may be
used in understanding the cinema.
Film and Society Area. Offered by the Department of History and the Department of Political Science and International Relations: 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.

## Fundamentals of Business Minor

Administrative Committee: Associate Professors D.L. Schroeder (Information and Decision Sciences), Shingleton (Economics, Chair).

Objective. The objective of the Fundamentals of Business Minor is to introduce nonbusiness majors in Arts and Sciences, Engineering, and Nursing to the fundamentals of business.

## Required Courses

ECON 221 Economics - Micro . . . . . . . . . . . . . . . . . 3 Cr.
ACC 205 Financial Accounting . . . . . . . . . . . . . . . 3 Cr.
BLAW 104 Legal Environment of Business . . . . . 3 Cr.
FIN 304 Financial Management. . . . . . . . . . . . . . . 3 Cr.
MGT 304 Management and
Organizational Behavior ................. 3 Cr.
MKT 304 Marketing Management . . . . . . . . . . . . 3 Cr.
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18 Cr.
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.

Students who intend to complete the Fundamentals of Business Minor are strongly encouraged to consult with the office of the Dean of the College of Arts and Sciences to obtain proper advising.

Students earning a Bachelor's degree in the College of Arts and Sciences may apply the 15 credits earned in the courses offered by the College of Business toward the 124 required for graduation (see pages 50-51).

Upon completion of the minor, the designation, "Fundamentals of Business Minor," is placed on the student's transcript.

# Gender Studies Minor 

Administrative Committee: Professors<br>Dooley (Law), J. Moore (Theology); Associate<br>Professors Burow-Flak (English), N. Corazzo (Art), Seguin (History), Shingleton (Economics); 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 . . . . . 3 Cr.

## Social and Life Sciences

ECON 233 Economics of Race and Gender . . . . . 3 Cr.
PSY 390 Topics (when appropriate) . . . . . . . . . . 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.
SOCW 390 Colloquium
(when appropriate topic) . . . . . . . . . . . . . . . . 3 Cr .
SOC 220 The Family . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
SOC 275 Systems of Social Stratification . . . . . . . 3 Cr.
SOC 340 Gender. . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.

## Humanities and Fine Arts

ART 311 Topics (when appropriate). . . . . . . . . . . 3 Cr.
ART 318 Nineteenth Century European Art . . . 3 Cr.
COMM 322 Sports Journalism. . . . . . . . . . . . . . . 3 Cr.
ENGL 200 Horrible Husbands Wicked Wives . . 3 Cr.

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ENGL }390\mathrm{ Topics (when appropriate)3 Cr .
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THEO 317 The World of the New Testament . . ..... 3 Cr
THEO 319 Women in the Bible ..... 3 Cr
THEO 343 Theology of Marriage and Sexuality. 3 Cr.

```CC 300 Seminar (when appropriate topic) . . . . . 3 Cr .
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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.

## GNST 290. Topics in Gender Studies.

Cr. 1-3. Intensive study of a special topic in gender studies. Topics may focus on theory and method; on the intersection of gender studies with other disciplines; or on particular groups, such as women of color. May be repeated for credit if the topic varies. Prerequisite may vary with topic.

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: Professors Mauk (Nursing), Pepa (Nursing, Chair); Associate Professors G. Evans (Biology), Nelson (Psychology), Ringenberg (Social Work)

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 . . 3 Cr.
PSY 475 Human Neuropsychology. . . . . . . . . . . . 3 Cr.

## Aging and Religious Faith

THEO 343 Studies in Theology, Health and Healing (when appropriate)

3 Cr .
THEO 349 Topics in Religious Ethics (when appropriate). 3 Cr .
THEO 353 Studies in Theology and Practice. . . . 3 Cr.
Aging and Health
NUR 318 Global Health Issues. . . . . . . . . . . . . . . . 3 Cr.
NUR 351 Gerontological Nursing . . . . . . . . . . . . . 3 Cr.
NUR 390 Issues at End of Life . . . . . . . . . . . . . . . . 3 Cr.

## Elective Courses

BIO 260 Human Nutrition . . . . . . . . . . . . . . . . . . 3 Cr.
SOCW 390 Social Work Colloquium (when
appropriate)
3 Cr .
SOC 220 The Family . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
SOC 390 Issues in Sociology (when appropriate) 3 Cr .
THEO 341 Bioethics. . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.

## Peace and Social Justice Studies Minor

Administrative Committee: Professors Baas (Political Science and International Relations); Associate Professors Geiman (Philosophy, Chair), Ringenberg (Social Work), Winquist (Psychology), 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 . . . 3 Cr. PSJ 386 Internship in Peace and Social Justice Studies. 3 Cr .

## International/Global Track

HIST 329 Revolutionary Movements in Twentieth-Century Latin America . . . . . . . 3 Cr.
HIST 350 Colonialism and Independence:
Understanding Modern Africa ......... 3 Cr .
HIST 355 Modern Middle Eastern History . . . . . 3 Cr.
POLS 230 International Relations . . . . . . . . . . . . . 3 Cr.
THEO 334 Holocaust Theology . . . . . . . . . . . . . . . . 3 Cr.
THEO 345 The Church in the World . . . . . . . . . . 3 Cr.
THEO 362 Islamic Religion and Culture . . . . . . . 3 Cr.

## Individual/Local Track

ECON 136 The Economics of Health,
Education, and Welfare. . . . . . . . . . . . . . . . . 3 Cr.
ECON 233 The Economics of Race and Gender . 3 Cr.
HIST 225 Alternative Perspectives of United States History . . . . . . . . . . . . . . . . . . 3 Cr.
HIST 226 The Hispanic U.S.. . . . . . . . . . . . . . . . . . 3 Cr.
POLS 340 Constitutional Law I . . . . . . . . . . . . . . . 3 Cr.
POLS 345 The Judicial Process . . . . . . . . . . . . . . . 3 Cr.
SOC 130 The Criminal Justice System . . . . . . . . . 3 Cr.
SOC 210 Contemporary Social Problems. . . . . . . 3 Cr.
SOC 265 Crime and Society . . . . . . . . . . . . . . . . . . . 3 Cr.
SOC 275 Social Stratification . . . . . . . . . . . . . . . . . . 3 Cr.
SOC 360 Penology . . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.
SOC 390 Issues in Sociology (when topic is
appropriate) . . . . . . . . . . . . . . . . . . . . 3 Cr
SOCW 330 Vulnerable Populations: Color, Gender, and Orientation. . . . . . . . . . . . . . . 3 Cr.
THEO 329 Topics in Christian History (when topic is appropriate) ............................... . 3 Cr.
THEO 333 Black Theology and Black Church. . . 3 Cr.
THEO 349 Topics in Religious Ethics (when topic is appropriate) . .............................. . 3 Cr
THEO 353 Studies in Theology and Practice. . . . 3 Cr.

## General Electives

PHIL 250 Political Philosophy . . . . . . . . . . . . . . . . 3 Cr.
POLS 250 Political Philosophy . . . . . . . . . . . . . . . 3 Cr.
POLS 361 Public Policy. . . . . . . . . . . . . . . . . . . . . . 3 Cr.
POLS 490 Seminar: Mediation and Arbitration . 3 Cr.
PSY 125 Social Psychology . . . . . . . . . . . . . . . . . . 3 Cr.
PSY 390 Topic: Cross Cultural Psychology . . . . . 3 Cr.
THEO 318 Jesus and the Gospels . . . . . . . . . . . . 3 Cr.

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. (Also offered as POLS 312/512.) 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.

## Philanthropic

 Leadership and Service MinorAdministrative Committee: Associate Professors Buinicki (English), Neff (Communication), and Adjunct Assistant Professor Lemley (Nursing).

Objectives. There are currently over one million registered non-profit organizations in the United States. While each organization may attract individuals with particular interests and expertise, these agencies also need leaders with consistent abilities in oral and written communication, critical thinking, problem solving, organization, and public advocacy within the corporate and governmental spheres. The minor in Philanthropic Leadership and Service further develops these core competencies while introducing students to the range of issues facing our communities. Students working in the minor will demonstrate that they have gone beyond volunteering at local organizations to thinking about how
they can best continue contributing to these organizations in a long-term and professional capacity. Finally, the minor gives students seeking degrees in other fields an opportunity to develop and to pursue their passion for service in a thoughtful and rigorous fashion.

Requirements. A minimum of 18 credit hours constitutes a minor in Philanthropic Leadership and Service. No more than two courses (six credits) may be taken from any one department. The requirements include:

Required Courses ( 6 credits)<br>GS 220 Contemporary Issues in Philanthropy<br>and Service . . . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.<br>ENGL 396 Traditions of Giving and Serving in American Life. . . . . . . . . . . . . . . . . . . . . . . 3 Cr.<br>\section*{Elective Courses ( $\mathbf{1 2}$ credits)}<br>COMM 265 Global Public Relations . . . . . . . . . . . 3 Cr.<br>COMM 362 Global Public Relations: Cases and Campaigns .......................... . 3 Cr.<br>COMM 363 Public Relations Leadership. . . . . . . 3 Cr.<br>COMM 364 Public Relations Social Media and Digital Relationships . . . . . . . . . . . . . . . 3 Cr.<br>*ENGL 300 Professional Writing. . . . . . . . . . . . . . 3 Cr.<br>*FLS 308 Spanish for Service Professionals . . . . . 3 Cr.<br>LS 420 Non-Profit Organizations ............... 3 Cr.<br>*MGT 304 Management and Organizational Behavior . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 Cr.<br>*MGT 315 Leadership and Interpersonal Skills . 3 Cr.<br>NUR 212 Introduction to Community-Based Nursing and Health Promotions . . . . . . . . . 3 Cr.<br>PHIL 125 The Good Life . . . . . . . . . . . . . . . . . . . . . 3 Cr.<br>SOC 275 Systems of Social Stratification . . . . . . . 3 Cr. SOCW 210 Social Welfare: Policy and Services . 3 Cr. THEO 332 Christian Theology and the Moral Life3 Cr. *Denotes course requires a prerequisite.

Within this set of courses, students may choose to develop a focus area that addresses their specific interest in the non-profit sector, although such focus areas are not required to complete the minor. Some sample focus areas and possible courses are listed below, but keep in mind that no more than two courses may be taken from any one department:
Communications (COMM 265, 362, 363, 364, ENGL 300, LS 420): for students interested in marketing and public relations.
Health and Social Work (FLS 308, NUR 212, 318, SOCW 210, SOC 275, LS 420): for students interested in service and philanthropy related to the health or social work professions.
Humanities (ENGL 300, PHIL 125, THEO 332, LS 420): for students interested in graduate work in philanthropic studies.
Non-Profit Management (COMM 363, ENGL 300, LS 420, MGT 304, MGT 315): for students interested in pursing service in an executive capacity.

## Urban Studies Minor

Administrative Committee: Professors Baas (Political Science and International Relations), Janke (Geography and Meteorology); Associate Professors Longan (Geography and Meteorology, Chair), Shingleton (Economics), Venturelli (Sociology and Criminology), 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. Core Course: Chicago: A City of Many Dimensions.
Cr. 4. Exploration into Chicago's history, its unique identity, its illustrative diversity grounded in its neighborhoods, its unscrupulous characters, its struggles for power, and the
inventiveness of its people and institutions. By questioning their assumptions about Chicago, students will discover themselves as transformed agents of change in the arts, as innovators, and in reshaping their communities. This course takes an interdisciplinary approach in viewing Chicago and allows students to examine the city from multiple perspectives. S/U grade only.

## 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 sixteen (16) credits of ROTC coursework for free electives only.

The College of Business 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 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 three (3) credits of ROTC coursework toward the Free Elective.
- 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).
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.
$\mathrm{Cr}, 3$. 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 SCHOOL



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 Northwest Indiana and the Great Lakes region. Now with over twenty degree and certificate programs, the Graduate School draws over half of its students from national and international pools, and programs and courses are delivered in a variety of modes, including traditional lecture/ seminar format, online, remote site, and evenings and Saturdays. Although most of the students are full time, a significant number attend the University while holding full- or part-time employment.

The Graduate School offers a wide range of master's degrees and certificate programs, as well as the education specialist in school psychology and school counseling, and the doctorate of nursing practice. A number of degrees may be earned in conjunction with the
J.D. degree from the Valparaiso University Law School.

Most degree and certificate programs are oriented toward achieving specific career goals or professional advancement. However, several serve the interests of students seeking personal enrichment or engaging in the reward of lifelong learning.

Details about all of the graduate programs and opportunities may be found in the Graduate Catalog, which may be obtained by contacting the Graduate School, Valparaiso University (219-464-5313) or by visiting their website <www.valpo.edu/grad>.

The graduate programs are under the general supervision of the Provost and the Faculty of the University. Its policies are defined by the Graduate Educational Policy Committee and are administered by the Dean of the Graduate School.

# LAW SCHOOL 

Jay Conison, J.D., Dean<br>Mark L. Adams, J.D., Vice Dean<br>D.A. Jeremy Telman, Ph.D., J.D., Associate Dean for Faculty Development Emily Janoski-Haehlen, J.D., M.L.S., Associate Dean of Law Library and Information Services Steven Probst, J.D., M.L.S., Assistant Dean for Students

Professors M. Adams, Berner, Blomquist, Bodensteiner, Brietzke, G. Brown, Conison, Dooley, Gaffney, Gienapp, Huss, Kohlhoff, Levinson, Lind, Moskowitz, Myers, Schmidt, Stith, Straubel, Stuart, Telman, Trujillo, Vance, Vandercoy, Welter, Whitton; Associate Professors Bushbaum, Calo, Carter, Cleveland, Herzig, Murray; Assistant Professors Cichowski, Heeren, Janoski-Haehlen, Knowles, Kutty, J. Morris, Tegarden, Wright; Distinguished Practitioners in Residence Alan Morrisson, Clare Neuchterlein.

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 Law School.

From the beginning, the Law School 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 Law School 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 cocurricular 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), Masters in Law (LLM), and Doctor of Juridical Science (SJD) 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, fiveyear program; and an accelerated two and one-half-year program. Unique to the Law School 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 SJD degree requires at least two semesters of residence, satisfactory completion of an oral examination, and a dissertation that is an original contribution to the literature of the law. SJD candidates must already hold the LLM degree.

The dual degrees are four-year programs. Admission to a dual degree program requires separate applications to both the Law School and Graduate School. Application forms for the J.D. degree are available online at <www. valpo.edu/law>, and the Graduate School applications are available online at <www. valpo.edu/grad>.

Detailed program information about the Law School 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.

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, the College of Engineering, and the College of Nursing. Students in Arts and Sciences, Nursing, and Engineering may complete most of the coursework for the Fundamentals of Business Minor 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 maximum 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 schedule, 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.

## FEES AND TUITION FOR 2012 SUMMER SESSIONS

Tuition per credit hour
Undergraduate . . . . . . . . . . . . . . . $\$ 480.00$
College of Adult Scholars . . . . . . . $\$ 480.00$
Online Courses . . . . . . . . . . . . . . . . $\$ 480.00$
Online Fee (per course) . . . . . . . . . . \$50.00
Undergraduate Nursing. . . . . . . . . $\$ 730.00$
Graduate. . . . . . . . . . . . . . . . . . . . . . $\$ 560.00$
MBA . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 699.00$
Graduate Nursing . . . . . . . . . . . . . . . \$645.00
RN/Special. . . . . . . . . . . . . . . . . . . . $\$ 480.00$
SAGE (Adults 60 +) Audit only. . . . \$60.00
Room-Double (per week). . . . . . . . \$190.00
Room-Single (per week). . . . . . . . . \$285.00

# 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 all the majors and programs as full-time students, and they may take courses in the evening, daytime, or both. 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: 24 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 114 or visit their website at <www. valpo.edu/continuinged $>$.

## 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 The Human Experience 5 Cr .
2. CORE 115 The Human Experience 5 Cr.
3. THEO 200 The Christian Tradition3 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 (except 145/150). . . . . . . . . . . . . . 3 Cr.
6. Social Sciences (from two different subject areas). . . . . . . . . . . . . . . . . 6 Cr.
7. Natural Science (with lab) . . . . . 3-4 Cr.

As stated on page 101, 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 and International Relations, 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
4. Students must achieve a minimum grade point average of 2.0 both cumulatively in all work at Valparaiso University and in their selected concentration.
5. At least 6 credits in the concentration must be taken at the 200 level or above.
6. Thirty of the last 34 credits for the degree must be completed in residence.
7. Students must complete 45 credits as a student in the College of Adult Scholars program.
8. At least half of the concentration requirements must be completed in residence and as a student in the College of Adult Scholars program.
9. 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:
10. Upper Level Theology. . . . . . . . . 3 cr.
11. Natural Science with Lab . . . . . 3-4 cr.
12. Quantitative Analysis . . . . . . . . . . 3 cr.
13. KIN 100 . . . . . . . . . . . . . . . . . . . . . . 1 cr.
14. Major/minor/electives . . . . . . . . 45 cr.

In meeting the requirements for the
bachelor's 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 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

The Human Experience. . . . . . . . 10 cr.
2. ENGL 200 Literary Studies. . . . . . 3 cr.
3. THEO 200 The Christian Tradition 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. MATH 211/213

Laboratory in Elementary Mathematics
II/Mathematics for Elementary
Teachers I . . . . . . . . . . . . . . . . . . . 4 cr.
B. Concentration in

Education Foundations . . . . . . . . . . 21 cr.

1. ENGL 321 Intermediate Composition . . . . . . . . . . . . . . . . . 3 cr.
2. GEO 101 World Geography OR SOC 210 Contemporary Social Problems . . . . . . . . . . . . . . . . . . . . . 3 cr.
3. PSY 110 General Psychology . . . . 3 cr.
4. PSY 330 Child and Adolescent

Development . . . . . . . . . . . . . . . . 3 cr.
5. ED 304 Educational Psychology . 3 cr.
6. COMM 243 Public Communication . . . . . . . . . . . . . . . 3 cr.
7. In addition to the above, any Cultural 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 the Associate of Arts degree (page 247).

## BACHELOR OF LIBERAL AND PROFESSIONAL STUDIES (124 CR.)

Students enrolled through the College of Adult Scholars program may choose to complete the Bachelor of Liberal and Professional Studies degree, which builds upon the Associate of Arts degree and its concentration options.

In addition to meeting the requirements for the Associate of Arts degree, students must complete the following:
A. General Education
Requirements 4 Cr.

Quantitative Analysis. . . . . . . . . . . . 3 Cr.
Choose one of:
KIN 100 Healthy Lifestyles . . . . 1 Cr.
LS 489 Professional and Career Development. . . . . . . . . . . . . . . 1 Cr.
B. Liberal Arts Interdisciplinary Core12 Cr.

LS 430 Senior Seminar in Natural Sciences and Interpretation . . . . . . . . . . . 3 Cr.
LS 450 Senior Seminar in Religion, Culture and Value . . . . . . . . . . . . 3 Cr.
Choose two from:
LS 410 Senior Seminar in the
Humanities . . . . . . . . . . . . . . . . . . 3 Cr.
LS 420 Senior Seminar in the Social
Sciences . . . . . . . . . . . . . . . . . . . . . 3 Cr.
LS 440 Senior Seminar in
the Fine Arts . . . . . . . . . . . . . . . . . . 3 Cr.
C. Major . . . . . . . . . . . . . . . . . . . . . . . 30 Cr.

Students take three additional courses ( 9 Cr .) in their Associate of Arts concentration to complete a major. Coursework for this major draws from the same departments as the Associate of Arts concentrations, and the major is designated with the same nomenclature (Culture and Humanity, Social and Behavioral Science, or Communication and Expressive Arts). As an alternative, the student may select the 30 -credit Individualized Major as described on page 45.

## D. Professional Studies Core 18-21 Cr.

Students complete the Fundamentals of Business Minor as described on page 235 or the Professional Studies Minor. Students choosing the Professional Studies Minor take coursework in five competency areas and complete an integrative project.

## PROFESSIONAL STUDIES MINOR

 (18 CR.)1. Communication Skills $\ldots \ldots \ldots . .3 \mathrm{Cr}$.
Choose one of:
COMM 243 Public Communication 3 Cr .
ENGL 300 Introduction to Professional
Writing. ................... 3 Cr .
2. Leadership and Team Building. ...3 3 Cr .
Choose one of:
COMM 345 Leadership
Communication ............. 3 Cr.
LS 421 Organizational Leadership
and Team Development. ..... 3 Cr .
3. Resource Management ..... 3 Cr .
Choose one of:
ACC 205 Financial Accounting. ..... 3 Cr .
BLAW 104 Legal Environmentof Business3 Cr .
ECON 221 Principles of
Economics-Micro ..... 3 Cr .
FIN 282 Personal Finance ..... 3 Cr .
MGT 100 Introduction to Contemporary
Business ..... 3 Cr .
MKT 304 Marketing Management. . 3 Cr.
PSY 270 Introduction to Industrial/
Organizational Psychology . . . . 3 Cr.
4. Human Relations and Diversity . . 3 Cr.
Choose three credits from:
MGT 304 Management and Organizational
Behavior ..... 3 Cr .
GS 200 Study Circle on Race Relations2 Cr.
GS 201 Facilitator Training for StudyCircles1 Cr .
LS 422 Intercultural Communication 3 Cr .LS 489 Professional and CareerDevelopment1 Cr.
ECON 233 Economics of Race
and Gender . ..... 3 Cr .
SOC 210 Contemporary Social Problems ..... 3 Cr.
PHIL 120 Democracy, Education and
Multiculturalism ..... 3 Cr .
5. Using Technology ..... 3 Cr .
Choose three credits from:
ART 230 Desktop Publishing ..... 3 Cr .
ART 231 Graphic Design I. ..... 3 Cr .
CE 151 Construction Surveying ..... 3 Cr .
COMM 110 Introduction to
Internet Communication. ..... 3 Cr.
CS 115 Computers and Computation. ..... 3 Cr.
CS 128 Introduction to Programming . . ..... 1-3 Cr.
CS 210 eCommerce and eBusiness Technology ..... 3 Cr .
ENGL 400 New Literacies, Technologies,and Cultures of Writing . . . . . . . 3 Cr.
GEO 215 Introduction to GeographicInformation Systems . . . . . . . . . . 3 Cr.
IDS 110 Business Spreadsheet
Applications ..... 1 Cr .
IDS 111 Business Applications Programming. ..... 1 Cr .
ME 104 Computer-Aided Design. ..... 3 Cr .
6. Capstone Integrative Project ..... 3 Cr .
Choose one option:
LS 485 Practicum. ..... 3 Cr .
LS 495 Integrative Project in Liberaland Professional Studies.3 Cr .
CPED 381-383 Cooperative3 Cr .

## 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).

## FUNDAMENTALS OF BUSINESS

This 18 credit certificate introduces students with little or no academic background in business to the fundamentals of business. The certificate emphasizes breadth of coverage regarding the areas of business and is open to those having at least an associate's degree. Coursework may be applied toward a business degree at Valparaiso University. This program is not open to degree-seeking students at Valparaiso University.

## 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 20-21 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 Design 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 controllers, design computer elements, 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.

## COURSE DESCRIPTIONS

## LS 410/610. Senior Seminar in the Humanities.

Cr. 3. Through focus on a particular theme, issue, or topic, this seminar explores ways in which the humanities - especially literature, philosophy, theology, history, and the languages - contribute insight into our individual and common humanity.

## LS 420/620. Senior Seminar in the Social Sciences.

Cr. 3. Through focus on a particular theme, issue, or topic, this seminar seeks to provide insight into ways by which the social science disciplines -especially communication, economics, cultural geography, history, political science, psychology, and sociology - contribute to the understanding of social institutions that shape society and individual behavior.

## LS 421/621. Global Leadership and Team Development.

Cr. 3. Defines qualities of a leader, with the goal of helping individuals find their style of leadership. Distinguishes between managing and leading, and defines the roles of coaching and mentoring. Motivation, communication, team development, and situation-based leadership are addressed.

## LS 422. Intercultural Communication.

Cr. 3. Study of the interaction between people who are culturally different on the basis of ethnicity, nationality, self-determination, gender, age, or some other grouping factor. Provides students with the theory, models, terminology, and techniques of communication to evaluate and synthesize the processes of effective interpersonal and Intercultural communication.

## LS 430/630. Senior Seminar in the Natural Sciences and Interpretation.

Cr. 3. Through focus on a particular theme, issue, or topic, this seminar seeks to provide insight into the ways by which the natural science disciplines -including biology, chemistry, physical geography, mathematics, and experimental psychology - contribute to the
formation and advancement of scientific and technical knowledge, especially in the context of contemporary issues.

## LS 440/640. Senior Seminar in the Fine Arts.

Cr. 3. Through focus on a particular theme, issue, or topic, this seminar explores ways in which the fine arts - especially art, music, and drama contribute richness and texture to all cultures.

LS 450/650. Senior Seminar in Religion, Culture, and Value.
Cr. 3. The stated and unstated values of cultures are deeply entwined with their religious expressions. Through focus on a particular theme, issue, or topic, this seminar examines important aspects of religion and its role and effect within culture.

## LS 485. Practicum.

Cr. 1-3. Exposure to and guidance within practical or work settings related to the student's field of professional interest. Approximately 40 contact hours per credit under the guidance of a faculty member and onsite supervisor. Prerequisite: junior standing.

## LS 489/689. Professional and Career Development.

 Cr. 1. Encourages students to reflect upon their career goals, strengths, and challenges as they plan entry into the job market or prepare for job transition, to develop successful skills for a job search, and when appropriate, to prepare for graduate study. $\mathrm{S} / \mathrm{U}$ grade only.
## LS 490. Topics in Liberal Studies.

Cr. 1-3. Junior or senior level topics courses that stress an interdisciplinary approach to the investigation and understanding of a classic or contemporary issues. May be repeated when topics vary.

## LS 495. Integrative Project in Liberal and

 Professional Studies.Cr. 3. An undertaking to bridge theory and practice in an area relevant to the student's professional interests. A major paper or creative work is required.

## 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. The online application is located at <www.valpo.edu/apply>. Applications for admission to undergraduate programs are sent to the Office of Admission. For admission to the Law School, consult the catalog of the Law School. For admission to the Graduate School, consult the catalog of the Graduate Division.

## General Requirements

Valparaiso University admits those students who demonstrate potential for success in rigorous academic work. 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 SAT or the 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 (Cor 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
Laboratory Science ..... 2
History .....  2
Foreign language. .....  2
Additional science, history, social sciences,language, English, and mathematicscourses.3

For students intending to major in the College of Nursing, high school preparation is expected to include:

[^3]chemistry. .....  3
History .....  2
Additional science, history, social sciences, language, English and mathematicscourses. 3
For students intending to major in the
College of Business, high school preparation isexpected to include:
English .....  4
Algebra, geometry, and advanced algebra .....  3
Laboratory Science ..... 2
History .....  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 schoolpreparation is expected to include:
English ..... 4
Algebra, geometry, advanced algebra, and precalculus ..... 4
Laboratory Science including chemistry/ physics ..... 3
History .....  2
Additional science, history, social sciences,language, English, and mathematicscourses................................ 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 (Cor 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.

To be considered for admission, a minimum 2.50 (C+) cumulative grade point average in college coursework is required for most programs. However, some programs require a minimum 3.00 (B) grade point average.

## 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, nonmatriculated 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-five 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 to the Office of Admission by May 1 for fall semester and Nov. 1 for spring semester.

1. Application - Applicants may submit the completed paper International Student Application, or complete the online application.
2. Official Transcripts - Applicants must submit original or certified copies of transcripts from all secondary schools (high schools), colleges, or universities 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 are recommended for admission and 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.
- Exceptions will be made on a case-bycase basis.
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 in the United States.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, visit interlinkesl.com/vu, email Becky.Shelton@ valpo.edu or fax (219) 464-6846.

Full-Time Enrollment. All international students who are studying on F-1 visas are required by the Department of Homeland Security 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 265 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 oncampus 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 463836493, U.S.A. or email 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 four ways: 1) through the Advanced Placement Program administered by the College Entrance Examination Board, 2) through the College Level Examination Program administered by the College Entrance Examination Board, 3) through the International Baccalaureate Program administered by International Baccalaureate North America, and 4) 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 Studio: 2D Design (ART 290-3 Cr.). . . . . . . . . . . . 3
Art Studio: 3D Design (ART 285-3 Cr.). . . . . . . . . . . . 3
Art History (ART 311-3 Cr.) . . . . . . . . . . . . . . . . . . . . . 3
Art Studio: Drawing (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
Chinese Language and Culture (FLC 102-4 Cr.) . . . . . 4
Chinese Language and Culture (FLC 102, 203-8 Cr.) . 5
Computer Science A (CS 115-3 Cr.). . . . . . . . . . . . . . . . 4
Computer Science A (CS 157-3 Cr.). ................ . . . 5
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
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, 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
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 (STAT 140 or IDS 205-3 Cr.) . . . . . . . . . . . . . 4

## PREVIOUS ADVANCED PLACEMENT EXAMINATIONS

The following AP examinations are no longer offered and are listed for reference for students who may have taken the older examinations.

## Examination

Required Score
Art Studio: General (ART 290-3 Cr.) . . . . . . . . . . . . . . 3
Computer Science AB (CS 115-3 Cr.). . . . . . . . . . . . . . . 3
Computer Science AB (CS 157-3 Cr.). . . . . . . . . . . . . . 4
French Literature (FLF 102-4 Cr.) .................. . . . 4
French Literature (FLF 102, 203-8 Cr.) .............. . . 5
Latin Literature (FLL 102-4 Cr.) . . . . . . . . . . . . . . . . . . 4
Latin Literature (FLL 102, 203-4 Cr.) . . . . . . . . . . . . . . 5

## 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:


Credit Earned
Individuals and Societies
English A1 (ENGL 100) . . . . . . . . . . . . . . . . . 3 Cr.
Economics (Social Analysis) .............. 3 Cr.
Geography (GLO 101) . . . . . . . . . . . . . . . . . . 3 C.
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.
Biology (BIO 171).......................... . . 4 Cr.

Phyics ( H ( $111,11 \mathrm{~L}$ )
Advanced Mathematics (Mathematics) . . 4 Cr .
Mathematical Methods (Mathematics). . . . 4 Cr .
Mathematical Studies (Mathematics) ..... 4 Cr.
Mathematics HL (Mathematics) ........... 4 Cr.
Art/Design (ART 290). . . . . . . . . . . . . . . . . . . 3 Cr.
Computer Science (CS 115). . . . . . . . . . . . . . . 3 Cr.
Latin (FLL 102) . . . . . . . . . . . . . . . . . . . . . . . . 4 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, mathematics, and chemistry 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 Office of the Registrar. 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 in items 4,5 , and 6 .
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 50 or above on the Humanities General Examination entitles a student to three credits in the area of Fine Arts or Fine Arts-Literature.
5. A score of 50 or above on the Social Science-History General Examination
entitles the student to three credits in the area of Social Analysis.
6. A score of 50 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 subject 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.)
Calculus with Elementary Functions
(MATH 131-4 Cr.) .50
College Composition (ENGL 100-3 Cr.) . . . . . . . . . . 50
College Composition Modular (ENGL 100-3 Cr.). . 50
French Language, Level I (FLF 102 - 4 Cr.). . . . . . . . . 45
French Language, Level II (FLF 102, 203 - 8 Cr.) . . . . 50
German Language, Level I (FLGR 102-4 Cr.). . . . . . 45
German Language, Level II (FLGR 102, 203 - 8 Cr.) . 50
Spanish Language, Level I (FLS 102 - 4 Cr.). . . . . . . . 45
Spanish Language, 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 Educational Psychology
(ED 304-3 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

## PREVIOUS CLEP EXAMINATIONS

The following CLEP examinations are no longer offered and are listed for reference for students who may have taken the older examinations.

## Examination

Freshman College Composition
(ENGL 100-3 Cr.)
Required Score

A score of 50 or above on the English General Examination entitles a student to three credits for English 100.

## Advanced StandingTransfer 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. Grades are not transferable; only credit transfers. For students in the College of Business, see page 192. For registered nurses in the degree completion program of the College of Nursing, see page 226.

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 $2.00(\mathrm{C})$ 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 applied toward a Valparaiso University degree is 94 credits (Colleges of Arts and Sciences, Business or Nursing) or 102 credits (College of Engineering). The remaining advanced standing credits will be applied as elective credit only. See page 263 for residence requirements and restrictions related to majors and minors.

Credit for workshops, institutes or travelstudy 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. Students will receive a copy of a Transfer Credit Equivalency

Report that lists the transfer credits accepted by Valparaiso University and the matching Valpo course equivalent. The Dean of the student's college will review the Transfer Credit Equivalency Report and prepare a Statement of Equivalency 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. (For the registration days and the calendar of the Law School, 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 for a full semester (excluding summer) must submit to the University Health 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 . . . . . . . . . . . . . . . . . . . . . 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 $3.00(\mathrm{~B})$ 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 Office of the Registrar. Freshmen are not
allowed to carry extra hours during the first semester. Extra credit hours above 19 credits per semester will also incur an additional tuition charge (see page 265).

## 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 Office of the Registrar.

## CHANGE OF SCHEDULE

Students may change 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 Office of the Registrar.

Any student-athlete who wishes to drop below 12 semester credit hours (full-time status) must obtain permission of the Athletics Compliance Coordinator or designee.

Deadlines for course addition, course withdrawal, filing for $\mathrm{S} / \mathrm{U}$ 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 forms 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 fulltime 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 Law School and the Graduate Division, refer to the appropriate bulletin.

The course grades reported and recorded in the Office of the Registrar 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 $\quad 2.0$
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.
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 $\mathrm{S} / \mathrm{U}$ or the student officially opts or petitions to have the $\mathrm{S} / \mathrm{U}$ 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 $\mathrm{S} / \mathrm{U}$ 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 to the Office of 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 the 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. A repeated course, if not originally taken on the $\mathrm{S} / \mathrm{U}$ basis;
2. Students in the professional colleges may choose the $\mathrm{S} / \mathrm{U}$ basis for free electives (if not taken in the major or minor fields) and for courses which fulfill their general education requirements in Core, Humanities, Social Science, Theology, Foreign Language, Diversity, or Kinesiology. For further regulations regarding the $\mathrm{S} / \mathrm{U}$ option for business students, please see page 193.
3. Such registration must be signed by the
student's academic advisor;
4. A decision to elect a course on the $\mathrm{S} / \mathrm{U}$ basis must be made by the end of the fourth full week of the semester for courses of usual length. After this deadline, the $\mathrm{S} / \mathrm{U}$ 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 (see page 193) and the College of Nursing (see page 227) 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 Office of the Registrar's web page.
4. 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.
5. Approved proposals must be filed in the Office of the Registrar 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. Deadlines to apply to audit a course are published in the calendar at the front of this catalog. 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 up to 19 credit hours. Any credit hour over 19 will be subject to the overload fee as published. Once in a course as
an auditor, the student cannot change the status of his or her 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, 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.

For regulations concerning academic deficiency in the Law School, see that School's bulletin.

Dismissed 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 dismissed and will specify the period of time for which they have been dismissed 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 Law School 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 Office of the Registrar. 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 Office
of the Registrar 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. The request for readmission is to be sent to the Office of 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 inservice 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 Office of the Registrar for consultation with the College of which the student is seeking readmission. The Office of the Registrar then notifies the student of the readmission 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 Office of the Registrar, 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 travelstudy ordinarily is granted only for work taken at Valparaiso University. In cases of exception to the preceding restriction, transfer credit for institutes or workshops will not exceed one credit per calendar week of instruction. Transfer credit for travel-study programs will usually not exceed two credits per calendar week.

Resident students who wish to take courses at other approved schools concurrently with their Valparaiso work should refer to the appropriate paragraph under Residence
Requirements on page 263.

## 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 Office of the Registrar.

In the case of transfer from one college to another, students should be sure to review the requirements for the degrees of the new college and note 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 Office of 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 Law School, 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 for a permit to withdraw by the deadline printed in the calendar at front of catalog. Upon return of the permit properly signed to the Office of the Registrar, the return of such fees as are refundable will be in accordance to the published refund schedule, available in the Student Accounts Office and on the Office of the Registrar's Web site. 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 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 Office of the Registrar. For the Law School, 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 Law School, 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 $\mathrm{D}+, \mathrm{D}, \mathrm{D}-$ and F are included. Grades of $\mathrm{S}, \mathrm{U}$ 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;
4. At most, ten transfer credits may be applied toward the student's final semester.
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 11-13 and 18-25 apply as taken in residence at this University.

Residence requirements for the
undergraduate baccalaureate degrees awarded by the College of Business can be found on page 192.

## APPLICATION FOR A DEGREE

Students initiate the commencement process by completing an application for graduation and turning it into the Office of the Registrar along with a copy of their degree audit, reviewed and signed by their major advisor. A student who wishes to receive a degree at the end of a Fall Semester must formally apply no
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 no later than the preceding October 1st.

Once this application has been processed, the students' degrees will be audited by the Office of the Registrar and students will be notified of any requirements they have yet to fulfill. Each student will be placed on a mailing list to receive all communications regarding commencement and Grad Finale, an event at which candidates can order their cap and gown, verify their diploma details, and gather important information from several departments in preparation for graduation. Being on the mailing list will also allow the student to receive tickets for guests to attend commencement.

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 for transfer work must be on file in the Office of the Registrar 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.

## COMMENCEMENT CEREMONIES

All students are strongly encouraged to participate in the commencement ceremony. The University conducts two commencement ceremonies annually.

The May ceremony is conducted in the Athletics-Recreation Center and includes those candidates completing their requirements in either a Spring Semester or a Summer Session. Following the ceremony, the Spring graduates' diplomas are available immediately. Students who complete their work toward a degree at the end of a Summer Session will be granted the degree at that time.

The December ceremony is conducted in the Chapel of the Resurrection and usually takes place before the Fall Semester is over. Therefore, it is strictly a ceremony and degrees will be conferred following the end of the Semester.

## 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 Law School 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 11-13 and 18-25).
Semester Honors are also referred to as the dean's list.

## 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 and on the University General Counsel's Web site.

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.

Beginning July 1, 2012, there is a charge of $\$ 3.00$ for each official electronic transcript ordered through the online transcript service and $\$ 5.00$ for each official paper transcript ordered through the same online service or in person from the Office of the Registrar.

## TUITION AND FEES EXPENSES HOUSING REGULATIONS



## Tuition and Fees

The following information pertains to undergraduate programs. Full- and parttime rates for the Law School are published in the Law Catalog. Full- and part-time rates for graduate programs 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.

## UNDERGRADUATE TUITION AND FEES, FULL-TIME STUDENTS

The academic year is comprised of two semesters (fall and spring), and two summer sessions. Tuition and fee charges are based on the number of credit hours and the college in which the student is enrolled. Undergraduate students enrolled in 12 or more credit hours are classified as full-time students. Full-time tuition and general fee rates for the fall and spring semester are as follows:

## Undergraduate Tuition, Full-Time

Full Time (12-19 credit hours) . . $\$ 15,585$ per semester Above 19 credit hours . . . . . . . . $\$ 1,300$ per credit hour

Undergraduate General Fee, Full-Time<br>12 or more credit hours . . . . . . . . . . $\$ 540$ per semester

The general fee is used to defray the costs of Student Senate, co-curricular activities, the Fitness Center, health services, and technology.

## UNDERGRADUATE TUITION AND FEES, PART-TIME STUDENTS

Undergraduate students enrolled in fewer than 12 credit hours are classified as part-time students. Part-time tuition and general fee rates for the fall and spring semester are as follows:

## Undergraduate Tuition, Part-Time

Enrolled in fewer than
12 credit hours . . . . . . . . $\$ 1,400$ per credit hour Enrolled in College of Adult Scholars (no credit hour requirement) . . . . . . . . . . . . $\$ 480$ per credit hour

Part-time students who audit a course pay $\$ 1,400$ per credit hour for that course.

Undergraduate General Fee, Part-Time
Enrolled in fewer than
12 credit hours . . . . . . . . . . . . . . $\$ 96$ per semester
The part-time general fee excludes the use of the Fitness Center and health services.

## ROOM AND BOARD RATES

All rates given are per semester; the academic year is comprised of two semesters.

## Room Rates

Wehrenberg, Guild and Memorial
Single . . . . . . . . . . . . . . . . . . . \$4,680 per semester
Double . . . . . . . . . . . . . . . . . \$3,242 per semester
Kade-Duesenberg
Single . . . . . . . . . . . . . . . . . . \$4,851 per semester
Double . . . . . . . . . . . . . . . . . \$3,360 per semester
Alumni, Lankenau, Brandt and Scheele
Single . . . . . . . . . . . . . . . . . . \$4,017 per semester
Double . . . . . . . . . . . . . . . . . \$2,782 per semester
Uptown East Apartments . . . . . . . \$4,150 per semester

## Meal Plans

All students living in residence halls, other than sorority members living in Scheele Hall who have completed less than six semesters of study, are assigned a mandatory a la carte meal plan as part of their housing agreement. Mandatory buy-in rates are as follows:
Mandatory Freshman . . . . . . . . . . \$1,800 per semester
Mandatory Sophomore . . . . . . . . . \$1,625 per semester
Mandatory Junior. . . . . . . . . . . . . . \$1,525 per semester
See "Dining Locations" on page 269 for additional meal plan information.

## Other Fees

Orientation-\$120. This fee is required of all new students, both resident and commuter. It is not refundable.

Readmission-\$20. This fee is payable at the time of application for readmission to the University. It is not refundable.

Tuition Deposit-\$100. This fee is required of all new students, both resident and commuter. It is not refundable. For the Law School, see the appropriate bulletin.

Housing Deposit-\$100 (\$100 for returning students). This fee is required of all students requesting University housing. In case of cancellation, see Refund Policy on pages 270-271.

Department of Education Fee for Professional Liability Insurance (\$29) and Criminal Background Check (cost varies). In connection with the clinical practice component of programs in education, all students in teacher education must have membership with the Indiana State Teachers Association beginning with the fall of the sophomore year or first year of enrollment in education courses. This membership includes ISTA/National Education

Association Educators Employment Liability Insurance.

All students must also undergo an annual criminal background check using the department's designated online background check service. The fee for this service is paid directly by students with a credit card to this service company. The first background check is $\$ 40$; fees decline slightly in subsequent years.

Performance Music Fees-\$360/\$160. The
University encourages students to continue performance music instruction by charging modest fees for private and class lessons. Students pay a fee of $\$ 360$ per semester, per course for instruction in private lessons. Students enrolled in functional piano lessons pay a fee of $\$ 160$ per semester, per course. There is no additional charge for use of an instrument or practice room. Performance music fees are not refundable after the tenth class day of a semester.

Engineering Laboratory Fee-\$360 per semester. The engineering laboratory fee is assigned to all students enrolled in the College of Engineering, pre-engineering students enrolled in engineering courses, and nonengineering students enrolled in GE 100. Exceptions to this fee may be granted by the Vice President for Administration and Finance.

Undergraduate Cooperative Education Programs-\$480 per credit hour.

Nursing Liability Insurance-\$24 (Family Nurse Practitioner-\$88). 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-\$125. This fee is payable by each nursing student 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-\$620. This fee is payable by each nursing student entering the sophomore year.

Comprehensive Social Work Fee-\$300
(juniors and seniors), \$75 (sophomores/first year students). This annual fee is required of social work majors. It covers field fees as well as the costs of multiple expected events. This fee is billed at the beginning of the fall semester.

Study Abroad, Cambridge, England- \$1,250. Each participant pays this fee.

Study Abroad, Reutlingen, Germany-\$1,250.
Each participant pays this fee.
Study Abroad, Puebla, Mexico-\$500. Each participant pays this fee.

Study Abroad, Hangzhou, China-\$1,250.
Each participant pays this fee.

Transcript-\$3-5 per official transcript. Official electronic transcripts ordered through the online transcript service are $\$ 3$, while official paper transcripts ordered through the same service or in person from the Office of the Registrar are $\$ 5$. 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. 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.

Returned Check Fees-\$20. A $\$ 20$ fee will be charged for each check returned by the bank due to insufficient funds, closed accounts, etc. This applies to checks submitted directly to Valparaiso University offices. Checks submitted to the University through Tuition Management Systems (TMS) are subject to TMS returned check fees and policies.

Vehicle Registration-\$72 per semester.

## Payment Terms

Amounts due the University are payable in full one week before the beginning of each semester.

Approximately three weeks before the beginning of each semester, students will receive a preliminary account notice via email to their University email address. Payment instructions will appear on the preliminary account statement. The preliminary account statement will also include estimated charges, financial aid and balance due for the coming semester. The student will need to adjust the balance due for pending charges anticipated for special course fees and for outside scholarships not appearing on the preliminary account statement. Amounts to be earned through campus employment may not be deducted, as these are paid directly to the student through the University's payroll system. Payment for the adjusted balance due must be made by August 15 for fall charges and December 30 for spring charges unless the student has enrolled in the TMS Tuition Payment Plan (see "Educational Expense Payment Plan" below). Payment instructions will appear on the preliminary account statement.

Each student registering at Valparaiso University assumes responsibility to pay all University-related expenses not covered by financial aid. Students who do not have sufficient financial aid, are not already enrolled in a monthly payment plan and have not paid their initial semester charges (tuition, general
fee, room and board) by the semester due date will be enrolled in a mandatory payment plan. These student accounts will automatically be charged a $\$ 35$ enrollment fee for the payment plan and a $\$ 100$ late payment fee.

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.

Delinquent Accounts. When a student's account becomes deliquent because payments are not made to the University according to the terms above, the monthly statements will contain a notice that the account is delinquent. Within 30 days from the billing date, the student must arrange with the Student Accounts Office a plan of payment that is satisfactory with the University.

If a satisfactory plan is not arranged, or if payments are not made in accordance with the payment plan, the entire balance shall be immediately due and payable, and the University has the right to take steps to collect the balance, including, but not limited to, the following:

- excluding the student from from classes;
- withholding course grades, academic transcripts, and diploma until the balance is paid;
- turning the student's account over to a collection agency; or
- taking legal action to collect the balance due.
The student authorizes the University to release financial information about his/ her account and other information useful in verifying the charges on the account to those concerned with collecting the balance due. In the event of collection procedures or a suit to collect unpaid balances on the student's account, the student will be charged all of the University's costs for collections, including legal fees, not to exceed $50 \%$ of the entire outstanding balance.


## EDUCATIONAL EXPENSE PAYMENT PLAN

Valparaiso University partners with a third party provider to offer a deferred payment plan for the convenience of those students and parents who may wish to spread payment over the semester or school year. Under the plan, monthly payments may be arranged for the payment of tuition, fees, room and board. The payment plan provider offers a yearly and a semester plan. The enrollment fee for the yearly plan is $\$ 55$ and is $\$ 35$ for the semester plan. The semester plan will be mandatory for those students who do not have sufficient financial aid or other resources and have not met the semester payment due date. A \$35 enrollment fee for the payment plan and a \$100 late payment fee will be charged to the student's account. A link to an explanation of the plan will be included with the fall and spring preliminary account statements that are emailed to the student's University email address approximately three weeks prior to the start of each term.

## 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 261. 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 or legal guardian (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. All roommate requests must be mutually indicated by both students. 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 LOCATIONS AND DINING PLANS

Dining Locations. The primary venues for undergraduate dining are located in the Harre Union which features two dining locations, the Founders' Table and the Campus Café. In addition, Grinders coffee shop is located in the Christopher Center.

Founders' Table is located on the east side of the Harre Union and is open for breakfast, lunch, and dinner Monday through Friday, as well as for brunch and dinner on Saturday and Sunday. Founders' Table features a wide variety of offerings, which include four display cooking stations that offer ethnic, vegetarian, and home-style favorites: The Chef's Corner features creative dishes with whole meal options; The Grill offers many all-time favorites such as chicken tenders, fries, burgers, and more; Sizzle provides unique choices such as stir-fry, pasta, and panini sandwiches; and the Brick Oven features pizza and specialty subs baked in a woodstone oven. In addition, Nuevo, is a Mexican concept area offering burritos, tacos, and more; the salad bar offers a variety of healthy items from which to choose, and the deli includes all the fixings to create your favorite sandwiches. Homemade soups are available daily and the Grab and Go area provides a variety of items including desserts, sandwiches, wraps, sushi, salads, and fresh fruit.

The Campus Café is located near the book store in the Harre Union and is open for lunch, dinner, and late night snacks, and offers a wide selection of groceries and convenience items. The Campus Café offers Grab and Go readymade selections, Perks Coffee shop featuring specialty coffee drinks from Starbucks, Freshens frozen yogurt and smoothies, and the Pizzazz
area, which offers selections such as pizza, grill items, soups, a sandwich bar, and appetizers.

Grinders coffee shop is located on the lower level of the Christopher Center for Library and Information Resources. Grinders is open late most evenings and serves a wide variety of specialty coffee drinks from Starbucks, and a variety of grab and go items, including pastries, salads, and wraps.

Dining Plans. Dining Plans are all à la carte, which means all items are purchased on a declining balance and are priced on an individual basis. Students begin each semester with a set amount of dollars for purchasing à la carte items and are not limited to a fixed number of meals. À la carte plans provide flexibility when making meal purchases, as students only pay for what they choose to eat, when they choose to eat. All students living in residence halls, who are freshman, sophomore, or junior classification, other than sorority members living in Scheele Hall, are required to purchase the Dining Plan associated with the student's classification. Students are required to purchase a meal plan until they have reached senior classification.

The mandatory rates for 2012-2013 are: $\$ 1,800$ per semester for freshmen; $\$ 1,625$ per semester for sophomores; and $\$ 1,525$ per semester for juniors. The dollars remaining, after the reduction of a $\$ 95$ administrative fee, may be used to make purchases in the University's dining facilities. Student ID cards have the Dining Plan encoded and are used for purchases at University dining locations.

All Dining Plans require two semesters of buy-in. Unused balances will be rolled over from the fall semester only and added to the spring semester buy-in as long as the student has purchased a plan for the spring semester. The rollover amount is automatically added to the student's account. If a student does not sign up for a spring plan, then they forfeit the remaining dollars. Unused balances at the end of the spring semester are not refunded or carried over. Dining plans are non-refundable.

If a student has special dietary needs such as medical restrictions or vegetarian/vegan diets, they can be accommodated by contacting the Dining Services online at <www.valpo.edu/ dining>, by email at dining@valpo.edu, or in the dining office located in the Harre Union, room 170.

## 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 Office of the Registrar.

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.) 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). Students should file 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 four and onehalf 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. Scholarships awarded for four years means the annual scholarship amounts are to be evenly divided each year between fall and spring semesters. If a student recipient graduates after only seven semesters of enrollment, the eighth semester of the scholarship is no longer available. Some exceptions are possible for students who enroll in summer terms with the express purpose of graduating early. Students should contact the Financial Aid Office as soon as they begin to consider graduating in less than four years to review how their financial aid awards will be affected. 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 AND HONORS AWARDS SCHOLARSHIPS

Presidential Scholarships and Honors Awards of varying amounts 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, annual award of varying amounts, 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, annual award of varying amounts, selected by the Chemistry Department.

Chinese and Japanese Studies Scholarships, varying award amounts selected by the Chinese and Japanese Studies Administrative Committee. Application required.

Deaconess Grants, varying award amounts, selected by the Lutheran Deaconess Association.

Foreign Language Scholarships, annual award of varying amounts, selected by the Foreign Language Department.

International Scholarships, varying award amounts, to selected international students.

Lutheran Leadership Awards, full tuition for two new students, selected for outstanding leadership within the church. Nominations are due October 15; applications are due January 10.

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, annual awards of varying amounts, selected by the Physics Department.

Phi Theta Kappa Awards, varying award amounts, to selected transfer students who are Phi Theta Kappa members.

Theatre Scholarships, annual award of varying amounts, 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/financialaid>. 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.

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 $\$ 602$ to $\$ 5,550$ annually; may be enrolled full-time or parttime.

## Federal Supplemental Educational

 Opportunity Grants (SEOG) are federal grants, awarded to Valparaiso University students with the greatest financial need with first preference to Federal Pell Grant recipients. Although by regulation the awards can range from $\$ 200$ to $\$ 4,000$, the actual awards determined by Valparaiso University are dependent upon the amount of funding provided by the federal government and the number of Pell Grant recipients. Recipients may be enrolled either 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. NonIndiana 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 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 incomecontingent 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.

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.

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.

## Federal Direct Subsidized Student Loans.

 Undergraduate students enrolled at least halftime 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.Undergraduate loans disbursed on or after July 1, 2012 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. All firsttime 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 and the interest rate is 6.8\%.

Dependent undergraduate students may also borrow an additional $\$ 2,000$ beyond the base loan amounts ( $\$ 3,500, \$ 4,500$, or $\$ 5,500$ ).

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 $\$ 6,000$ in additional unsubsidized loans, juniors and seniors up to $\$ 7,000$ and graduate students up to $\$ 20,500$.

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 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 principal and interest may begin 60 days after the loan is fully disbursed or the parent may request deferred repayment.

The filing of the FAFSA is required. Parents may apply for the Parent PLUS at <http:/ / www.studentloans.gov>.

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.

Valparaiso University Loans. Limited, low interest loans are administered by Valparaiso University. The amounts vary. Contact the Office of Financial Aid for details.

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.

Veterans' Programs. In addition to working with the Veterans' Administration (VA), military veterans should consult with the Financial Aid Office as soon as possible when preparing to enroll at Valparaiso University. The University does participate in the Yellow Ribbon Program under the Post 9/11 GI Bill, otherwise known as Chapter 33. The University awards the Patriot Award which in conjunction with the base Chapter 33 benefit and the additional Yellow Ribbon benefit will cover $100 \%$ of tuition and general fee for undergraduate students. Graduate and law students should refer to their schools' respective policies. The University does limit the number of Yellow Ribbon recipients it funds and priority goes to returning students already in the program and then on a firstcome, first-served basis for new students. If University scholarships/grants are part of the veteran's financial aid award, then total resources including VA scholarships and stipends may not exceed the veteran's cost of attendance as determined by the Financial Aid Office. Veterans may elect to decline University scholarship/grant aid in order to utilize federal student loan assistance which allows the veterans to receive aid in excess of the cost of attendance. Veterans are asked to meet with Financial Aid Office staff to discuss their options before enrolling.

ROTC Programs. Students who participate in the Air Force or Army ROTC programs may receive scholarship assistance through ROTC. Army or Air Force ROTC students who receive full tuition scholarships along with ROTC living and book stipends will also be guaranteed additional scholarships/grants from the University such that the total of all aid will equal at least the tuition, general fees, on campus room and meal plans appropriate for the students' academic grade levels, and books. Air Force ROTC students who receive only partial tuition scholarships through ROTC will also receive University scholarship/grants at least in the amount of on campus room and meal plans appropriate for the students' academic grade levels. A student must live in University-owned or controlled housing and be enrolled in a full-time meal plan in order to receive the additional University funding. If University scholarships/grants are part of the ROTC student's award, then total resources including ROTC scholarships and stipends may not exceed the student's cost of attendance as determined by the Financial Aid Office. ROTC students may elect to decline University scholarship/grant aid in order to utilize federal student loan assistance which allows the students to receive aid in excess of the cost of
attendance. ROTC students are asked to meet with Financial Aid Office staff to discuss their options before enrolling.

## Valparaiso University Lilly Community

 Award. Indiana students selected by their local Lilly Community Foundation to receive its full tuition and fees scholarship will also be guaranteed University scholarship/grant aid such that the total of all aid will cover tuition, general fee, on campus room and meal plan appropriate to the students' grade levels, and books. A student must live in University-owned or controlled housing and be enrolled in a fulltime meal plan in order to receive the additional University funding.
## 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 their loan servicer about repayment of loans. There are a variety of repayment options and options for deferring repayment.

## 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 and reviewed by 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 (pages 270-271).

## 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 certificate 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 financial aid. University grants and scholarships are available only for selected Valparaiso University programs.

## EXIT INTERVIEWS

Prior to graduation, leaves of absence, or withdrawal from the University, students who have accepted loans must complete separate interviews for Federal Direct Loans and Perkins Loans.

## APPEAL PROCEDURE

A review of any decision concerning a financial aid package may be requested. First, contact the Office of Financial Aid. If the outcome of the initial review is unsatisfactory, then a case review by the Financial Aid Appeals Committee may be requested. If the decision of the Financial Aid Appeals Committee is unsatisfactory, then an appeal may be presented to the Vice President for Enrollment Management. 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 270-271). 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 270-271.

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)
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 add to total hours attempted and hours completed. 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 noncredit 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 timeframe 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 <br> 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. Contact the Office of Admission for more information.
- 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. Contact the Office of Admission for more information.
- 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 College of Engineering Recruiting Committee. A service learning component 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. This is a renewable scholarship for a total of four years when criteria is met. Scholarship applications will be mailed to invited students in December. 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.
- 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 Admission 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 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 residents and United States citizens, minority students seeking teacher certification OR students 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
- Reverend Theodore and Vera Andres Memorial Endowed Scholarship
- D. J. Angus-Scientech Education Foundation Award
- Robert Augustine Memorial Endowed Scholarship
- Richard Baepler Donated 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)
- 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
- Evelyn Ann 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
- Olive and Holger Cattau Memorial Endowed Scholarship
- CBA Dean's Donated Scholarship
- Chesrow Family Memorial 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
- Harold "Slim" and Betty (Klewin) Denig Endowed Scholarship
- Randy and Linda Dessau Law School Scholarship
- Donna and Lonnie Dodge Endowed Memorial Scholarship
- Robert \& Ann Doering 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
- Susan Jenny Ehr 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
- 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
- General Scholarship Endowment
- Herbert Gerke Scholarship
- Henry \& June Giebel Study Abroad Endowed 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 Gratzer 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
- Frederick H. and Louise Rice Hartwig 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. Hellerman Endowed Scholarship
- John and Dorothea Helms Endowed Scholarship
- Dr. Karl H. Henrichs Endowed Scholarship
- Karl H. and Luetta M. Henrichs Endowed Scholarship
- Hildegarde Herfurth Endowed Scholarship
- John and Rosa Herscher 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
- Heidi Steskel Hill Endowed Scholarship
- Jack Hiller Law Scholarship
- Rose L. Hilt Memorial Endowed Scholarship
- Walter S. Hiltpold Endowed Scholarship
- History Faculty Merit Scholarship
- William E. \& Jayne E. Hoehner Endowed Scholarship
- Hoeppner, 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
- Stephen R. Jenny Endowed Scholarship
- Richard F. and Martha W. Jeske Endowed Scholarship
- Jewish Students Scholarship in Law
- Edward Jiede, Jr. Endowed Scholarship
- Professor Edwin and Jean Johnson Endowed Scholarship
- Ralph and Marilyn Johnson Scholarship
- Shirley Ayres Jud Memorial Endowed 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
- Klepits-Kules Scholarship
- 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. Knoeppel 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
- Lauretta 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
- Meyer Family Scholarship for Women Engineers
- 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
- 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 Law School
- Ohio Annual Endowed Scholarship
- Rev. Armin and Evelyn Oldsen Endowed Scholarship
- College of Engineering Alumni Power Engineering Scholarship (formerly Dr. Kraig Olejniczak)
- 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
- Margaret Perry Christ College Donated Scholarship
- Peters Family West Michigan Endowed Scholarship
- Gilbert A. Peters Endowed Scholarship
- Professor Carol Petersen Award in French and German
- 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)
- 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
- Robert K. and Lucile M. Pohl Memorial 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. Prahl Scholarship
- Mrs. Hazel Predoehl Memorial Endowed Scholarship
- Presidential Endowed Scholarship for Minorities
- President's Student Assistance Scholarship
- Wallace L Pretzer Study Abroad 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
- Robert D. Rucker, Jr. Scholarship
- Adele Ruettgers Endowed Scholarship
- Noah B. Ruff Memorial Endowed Scholarship
- August and Helene Ruhe Endowed Scholarship
- Bernice Lillie Ruprecht Endowed Scholarship (PACT)
- Freeman and Frances Russell Endowed Scholarship
- Clemonce and Glenice Sabourin Endowed Scholarship (PACT)
- Gerhard Salzmann 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
- PhilipScheid Family Endowed Scholarship
- William Schlender Endowed Scholarship
- Walter E. Schmalz Memorial Endowed Scholarship (PACT)
- Jane Conway Schmeckpeper Endowed Scholarship
- Dr. Richard Schmidt Endowed Scholarship
- Dr. Robert V. Schnabel Endowed Scholarship
- Mr. and Mrs. Henry J. Schneider Endowed Scholarship
- Richard A. Schoenbohm Endowed Music Scholarship (PACT)
- Law School Alumni Board of Directors Scholarship
- Kermit A. Schottman Scholarship in Law Endowment
- 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
- Senior Class Donated 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. Streder Endowed Scholarship
- Richard \& Rita Strefling Nursing 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 Gerontological Nursing 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
- 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



President Heckler

## Full-Time Faculty 2011-2012

Mark Leslie Adams, J.D., Professor of Law; Vice Dean, Law School; Williams College (B.A., 1983); University of Chicago (J.D., 1988)

Sara Beth Adams, M.S.N., Adjunct Assistant Professor of Nursing; Indiana University Northwest (B.S.N., 1999); Valparaiso University (M.S.N., 2009)

Mohamed Faisal Ahamedkutty, L.L.M., Assistant Professor of Law; University of Ottowa (L.L.B., 1994); York University, Osgoode Hall Law School (L.L.M., 2006)

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)

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)

Richard A. AmRhein, M.L.S., Professor of Library Services; Eastern Illinois University (B.M., 1978; M.A., 1981); Baylor University (M.M., 1980); Rutgers University (M.L.S., 1990)

Daniel Lee Arkkelin, Ph.D., Professor of Psychology; Bowling Green State University (B.S., 1974; M.A., 1976; Ph.D., 1978)

Amy L. Atchison, Ph.D., Assistant Professor of Political Science; Jacksonville State University (B.A., 1995); Florida State University (M.A., 1996); University of Tennessee (Ph.D., 2010)

Roy A. Austensen, Ph.D., Professor of History; Acting Dean, College of Business; Concordia College,

River Forest (B.S., 1963); University of Illinois at Urbana-Champaign (M.A., 1964; Ph.D., 1969); University of Vienna

Larry Robert Baas, Ph.D., Professor of Political Science; University of Wisconsin-Whitewater (B.Ed., 1968); Kent State University (M.A., 1969; Ph.D., 1976)

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)

Dawn R. Jeglum Bartusch, Ph.D., Associate Professor of Sociology and Criminology; Valparaiso University (B.A., 1987); University of WisconsinMadison (M.S., 1989; Ph.D., 1998)

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)

Sedefka V. Beck, M.A., Visiting Instructor in Economics; University of Illinois at Chicago (B.A., 1998; М.А., 2000)
${ }^{1}$ 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)

Richard Venn. Benson, III, Ph.D., Visiting Assistant Professor of Foreign Languages and Literatures; New York University (B.A., 1999); University of North Carolina at Chapel Hill (M.A., 2005; Ph.D., 2009)

[^4]Bruce Gilbert Berner, LL.M., Professor of Law; the Louis and Anna Seegers Professor in Law; Valparaiso University (B.A., 1965; LL.B., 1967); Yale University (LL.M., 1978)
${ }^{2}$ 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., Visiting Assistant Professor in Foreign Languages and Literatures; Miami University (B.A., 1971); Indiana University (M.A., 1973; Ph.D., 1980)

Jennifer Irene Hellmers Bjornstad, Ph.D., Associate Professor of Foreign Languages and Literatures; St. Olaf College (B.A., 1991); University of Wisconsin-Madison (M.A., 1994; Ph.D., 2001)

O'Neill Blacker-Hanson, Ph.D., Assistant Professor of History; University of Washington (B.A., 1996; M.A., 1999; Ph.D., 2005)

Sandra J. Bleza, M.S.N., Adjunct Assistant Professor of Nursing; Oakland University (B.S.N., 1990); Valparaiso University (M.S.N., 2009)
Robert Frank Blomquist, J.D., Professor of Law; University of Pennsylvania (B.S., 1973); Cornell University (J.D., 1977)
Alan Bloom, Ph.D., Associate Professor of History; University of California, Santa Barbara (B.A., 1987); Duke University (M.A., 1995: Ph.D., 2001)

Ivan Edward Bodensteiner, J.D., Professor of Law; Loras College (B.A., 1965); University of Notre Dame (J.D., 1968)

Joseph Andrew Bognar, 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)

Sara J. Bothun, Ph.D., Assistant Professor of Economics; University of Wisconsin (B.A., 2005); Clark University (M.A., 2008; Ph.D., 2011)
${ }^{3}$ Thomas E. Boyt, D.V.M., Ph.D., Professor of Marketing; 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., Senior Research Professor; University of Missouri-Columbia (B.S.Ed., 1963; M.Ed., 1970; Ph.D., 1973)

Julie Marie Brandy, R.N., Ph.D., F.N.P.-B.C., Assistant Professor of Nursing; University of Evansville (B.S.N., 1991); Valparaiso University (M.S.N., 1995); Loyola University (Ph.D., 2011)

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)
Kelly Thomas Brewer, J.D., Adjunct Professor of Law; Valparaiso University (B.A., 2001; J.D., 2008)
2 Retired June 30, 2012
3 On Leave of Absence, Fall and Spring Semesters

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., Associate Professor of Law; University of Wisconsin (B.A., 1988; J.D., 1993) University of Illinois at 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)

Lorraine 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)

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 Buggeln, Ph.D., Associate Professor of Art History and Humanities in Christ College; the Phyllis and Richard Duesenberg Chair in Christianity and the Arts; Dartmouth College (B.A., 1985); University of Delaware (M.A., 1987); Yale University (Ph.D., 1995)
${ }^{4}$ Martin Thomson Buinicki, Ph.D., Associate Professor of English; the Walter G. Friedrich Professor of American Literature; University Research Professor; University of Northern Colorado (B.A., 1995; M.A., 1997); The University of Iowa (Ph.D., 2003)

Jonathan Karl Bull, M.L.S., Assistant Professor of Library Services; Valparaiso University (B.A., 2006); Indiana University (M.L.S., 2009)
${ }^{5}$ Marcia JoAnn Bunge, Ph.D., Professor of Humanities and Theology in Christ College; the W. C. Dickmeyer Professor in Christian Education; St. Olaf College (B.A., 1976); University of Chicago (M.A., 1979; Ph.D., 1986)
${ }^{6}$ Beverly J. Burmeister, M.L.S., Assistant Professor of Law Librarianship; Goshen College (B.A., 1966); Jane Addams Graduate College of Social Work (M.S.W., 1968); Indiana University (M.L.S., 2007)

Elizabeth 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.Libr., Associate Professor of Law Librarianship; University of Nevada, Reno (B.S., 1990); Lewis and Clark College (J.D., 1993); University of Washington (M.Libr., 1994)
${ }^{7}$ Edward J. Byrne, Ph.D., Professor of English; Brooklyn College (B.A., 1974; M.F.A., 1976); University of Utah (Ph.D., 1983)
4 On Sabbatical Leave, Fall Semester
5 On one-half Sabbatical Leave, Fall and Spring Semesters
6 Retired June 30, 2012
7 On Sabbatical Leave, Spring Semester

Katherine Elizabeth Calloway, Ph.D., Lilly Fellow and Lecturer in Humanities in Christ College; Baylor University (B.A., 2003; M.A., 2005); University of British Columbia (Ph.D., 2010)

Zachary R. Calo, J.D., Ph.D., Associate Professor of Law; Peabody Conservatory of Music (B.A., 1997); The Johns Hopkins University (M.A., 1997); University of Virginia School of Law (J.D., 2005); University of Pennsylvania (Ph.D., 2007)

Alexander J. Capaldi, Ph.D., Assistant Professor of Mathematics and Computer Science; Ferris State University (B.A., 2004; B.S., 2004); North Carolina State University (M.O.R., 2006; M.S., 2008; Ph.D., 2010)

Mindy B. Capaldi, Ph.D., Assistant Professor of Mathematics and Computer Science; Georgetown College (B.A., 2006; B.S., 2006); North Carolina State University (M.S., 2008; Ph.D., 2010)
${ }^{8}$ 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., Associate 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)

Christina Marie Cavinder, M.S.N., Adjunct Assistant Professor of Nursing; Indiana University (B.S., 1988; M.S.N., 1999)

David Howard Chapman, Ph.D., Visiting Assistant Professor of Mathematics and Computer Sciences; Iowa State University(B.S., 2001); University of Northern Iowa (M.A., 2005); Louisiana State University (Ph.D., 2011)

Victoria O. Chiatula, Ph.D., Assistant Professor of Education; Valparaiso University (B.S.E.E., 1995); University of Michigan (M.A., 1997); Loyola University (Ph.D., 2006)

Curtis W. Cichowski, J.D., Associate Professor of Law; Carroll College (B.A., 1978); Valparaiso University (J.D., 1981)

Craig Andrew Clark, Ph.D., Assistant Professor of Geography and Meteorology; Valparaiso University (B.A., 1991); University of Kansas (M.S., 1994); Iowa State University (Ph.D, 2007)

Robert W. Clark, Ph.D., Assistant Professor of Chemistry; Central Michigan University (B.S., 1999); University of Wisconsin-Madison (M.S., 2001; Ph.D., 2005)
${ }^{9}$ 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)

[^5]9 On Sabbatical Leave, Fall Semester

Jay Conison, J.D., Professor of Law; Dean, Law School; Yale College (B.A., 1975); University of Minnesota, Twin Cities Campus (M.A., 1978; J.D., 1981)

Ruth Sara Connell, M.S., Associate Professor of Library Services; Muskingum College (B.A., 1998); University of Illinois at UrbanaChampaign (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

Amy Carol Cory, Ph.D., Assistant Professor of Nursing; Indiana University (B.S.N., 1994); Marquette University (M.S.N., 1999); University of Illinois at Chicago (Ph.D., 2007)

Amy Marie Cramer, M.Ed., Instructor in Education; Valparaiso University (B.S., 2000; M.Ed, 2002)
Barbara Louise Crumpacker Niedner, M.S.W., Visiting Instructor in Social Work; Valparaiso University (B.S.W., 1983); Indiana University (M.S.W., 1985)

Sara Running Danger, Ph.D., Associate Professor of English; Concordia College, Moorehead (B.A., 1992); South Dakota State University (M.A., 1994); University of Kansas (Ph.D., 2004)

Grayson S. Davis, Ph.D., Professor of Biology; George Washington University (B.S., 1970); University of Virginia (Ph.D., 1981)

Nancy Lea Davis, Ph.D., Assistant Professor of Education; Indiana State University (B.S., 1969); Long Island University (M.S., 1974); Union Institute and University (Ph.D., 2004)

Nancy Therese Daw, M.S.N., Adjunct Assistant Professor of Nursing; Illinois Benedictine College (B.S., 1979); Purdue University (M.S.N, 2005)

Sarah R. Degner Riveros, Ph.D., Visiting Assistant Professor of Foreign Languages and Literatures; University of Illinois (B.A., 1997); Columbia University (M.Phil., 2002; Ph.D., 2007)

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)

Melissa Anne Desjarlais, Ph.D., Assistant Professor of Mathematics and Computer Science; Alma College (B.S., 2000); University of NebraskaLincoln (M.S., 2002; Ph.D., 2009)
${ }^{10}$ Nirupama Devaraj, Ph.D., Assistant Professor of Economics; Stella Maris College (B.A., 1994); Clark University (M.A., 2001; Ph.D., 2005)

Sara S. Dick, Ph.D., Assistant Professor of Biology; Purdue University (B.S., 1997; Ph.D., 2009); University of Wisconsin, Madison (M.S., 2005)
Jeffrey Scott Doebler, Ph.D., 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)
Lisa Maugans Driver, Ph.D., Associate Professor of Theology; Ball State University (B.A., 1988); University of Toronto (M.A., 1989; Ph.D., 1996)

Paul Harlan Drube, Ph.D., Assistant Professor of Mathematics and Computer Sciences; University of St. Thomas (B.A. [Mathematics], 2005; B.A. [Physics], 2005); University of Iowa (Ph.D., 2011)

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., 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)
Bradford Lee Eden, Ph.D., Dean of Library Services and Professor of Library Services; Carthage College (B.A., 1982); Indiana State University (M.A., 1984); University of North Texas (M.S., 1994); University of Kansas (Ph.D., 1991)

Robert Oliver Garrison Elder, Ph.D., Lilly Fellow and Lecturer in Humanities in Christ College; Clemson University (B.A., 2003; M.A., 2005); Emory University (Ph.D., 2011)

Steven Carl Engerer, Ph.D., Associate Professor of Chemistry; Michigan State University (B.S., 1975); University of Chicago (Ph.D., 1982)
Alan David Ernstein, M.F.A., Assistant Professor of Theatre; University of Maryland (B.G.S., 1980); Boston University (M.F.A., 1987) 10 On Leave of Absence, Fall and Spring Semesters

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)

Linda Carol Ferguson, D.M.A., Professor of Music; University of Missouri-Kansas City (B.M., 1968; M.M., 1970; D.M.A., 1978)

Dennis Friesen-Carper, D.M.A., 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)
Martin T. Fromm, Ph.D., Visiting Assistant Professor of History; Brown University (B.A., 1997); Stanford University (M.A., 2001); Columbia University (Ph.D., 2010)
Barbara Gaebel-Morgan, M.S.W., Visiting Instructor 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, Ph.D., Assistant Professor of Geography and Meteorology; Presidency College (B.Sc., 1995); University of Madras (M.Sc., 1997); Indiana State University (Ph.D., 2009)

Shodhin K. Geiman, Ph.D., Associate Professor of Philosophy; Xavier University (A.B., 1983); Washington University (A.M., 1987; Ph.D., 1988); Goethe University

Suzanne Kim Genovese, Ph.D., Associate Professor of Nursing; Indiana University Northwest (B.S.N.); University of Notre Dame (M.S.); Indiana University-Purdue University Indianapolis (M.S.N.); Indiana State University (Ph.D., 2009)

Adam Paul Gibson-Even, Ph.D., Assistant Professor of Physics and Astronomy; Valparaiso University (B.A., 2000; B.S., 2000); University of California, Berkeley (M.A., 2002, Ph.D., 2006)

Marcia Lou Gienapp, J.D., Professor of Law; Valparaiso University (B.A., 1973; J.D., 1977)
Delphina Hopkins Gillispie, Ph.D., Assistant Professor of Education; Berea College (B.A., 1973); Eastern Kentucky University (M.S., 1975); Purdue University (Ph.D., 2008)
Richard Alan Gillman, D.A., Professor of Mathematics and Computer Science; Assistant Provost; Ball State University (B.S., 1979; M.A., 1981); Idaho State University (D.A., 1986)

Elizabeth Gingerich, J.D., Associate Professor of Business Law in the College of Business; 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)

Kevin H. Goebbert, Ph.D., Assistant Professor of Geography and Meteorology; Valparaiso University (B.S., 2003); University of Oklahoma (M.S., 2006; Ph.D., 2009)

Craig M. Goehler, Ph.D., Assistant Professor of Mechanical Engineering; University of Notre Dame (B.S.M.E., 2002; M.S.M.E., 2004; Ph.D., 2007)

Hui Gong, Ph.D., Assistant Professor of Mathematics and Computer Sciences; Tongji University (B.E., 2001); Villanova University (M.S., 2004); Temple University (Ph.D., 2010)
Thomas 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., Associate Professor of Education; Western Illinois University (B.S., 1989; M.S., 1990); Ball State University (Ph.D., 1994)
Samuel J. Graber, Ph.D., Visiting Assistant Professor of English; St. Olaf College (B.A., 1997); Yale University (M.A.R., 2000); The University of Iowa (M.A., 2003: Ph.D., 2008)

Ericka Shay Tyner Grodrian, D.M., Assistant Professor in Music; Converse College (B.A., 2002); University of Alabama (M.M., 2004); Indiana University (D.M., 2011)
Christoffer-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; University of Pittsburgh (B.S., 1972; M.B.A., 1977); Valparaiso University (J.D., 1992); DePaul University (LL.M., 1998)
${ }^{11}$ Michael John Hagenberger, Ph.D., Associate Professor of Civil Engineering; Bucknell University (B.S., 1992); Cornell University (M.E., 1993); The University of Texas at Austin (Ph.D., 2004)

Carter Fredric Hanson, Ph.D., Associate Professor of English; Luther College (B.A., 1992); University of Iowa (M.A., 1996; Ph.D., 1998)

John B. Harrison, Ph.D., Assistant Professor of Education; Concordia University River Forest (B.A., 1988); Indiana University (M.S.Ed., 2002); Concordia University Chicago (Ph.D., 2009)
${ }^{12}$ 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)

11 On Sabbatical Leave, Spring Semester
12 Retired June 30, 2012
${ }^{13}$ Gail Hartzell, M.L.S., Associate Professor of Law Librarianship; Kent State University (B.A., 1968); Indiana University (M.L.S., 1992)
Mark Alan Heckler, Ph.D., President of the University, Professor of Theatre; Elizabethtown College (B.A., 1977); Catholic University (M.F.A., 1979); University of Colorado (Ph.D., 2011)

George Charles Heider, Ph.D., Associate Professor of Theology; Concordia Senior College (B.A., 1975); Concordia Seminary-St. Louis (M.Div., 1979); Yale University (M.A., 1980; M.Phil., 1982; Ph.D., 1984)

Kelly Dianne Helm, Ph.D., Assistant Professor of Physical Education; Brigham Young University (B.S., 1981); The University of Montana (M.S., 1998); Purdue University (Ph.D., 2009)

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)

David J. Herzig, J.D., Assistant Professor of Law; University of Louisville (B.A., 1994); University of Kentucky (J.D., 1997)
Todd Christopher Hillwig, Ph.D., Associate Professor of Physics and Astronomy; Anderson University (B.A., 1993); Ball State University (M.Sc., 1995); Indiana University (M.A., 1998; Ph.D., 2001)
Patricia Marie Hogan-Vidal, M.L.S., Assistant Professor of Library Services; Saint Mary's College (B.A., 1980); Indiana University (M.L.S., 1985)

Jennifer Suzanne Holt, Ph.D., Assistant Professor of Chemistry; Miami University (B.S., 1996); University of Michigan (Ph.D., 2002)
Sarah Holterhoff, M.A.L.S., Associate Professor of Law Librarianship; Ohio State University (B.S.Ed., 1970); University of Wisconsin-Milwaukee (M.A.L.S., 1975)

Jennifer Jill Hora, Ph.D., Associate 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-Saros, Ph.D., Associate 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)
David Malcom Hull, Ph.D., Senior Research Professor; Wheaton College (B.S., 1960); Illinois Institute of Technology (M.S., 1972); University of Illinois at Chicago (Ph.D., 1982)

13 Retired June 30, 2012

Gregory D. Hume, Ph.D., Associate Professor of Mathematics and Computer Science; University of Montana (B.A., 1978; M.S., 1986); Illinois Institute of Technology (Ph.D., 1995)

Phillip Ray Humphrey, Ph.D., Assistant Professor of Finance in the College of Business; Oklahoma State University (B.S., 2000; M.S., 2004; Ph.D., 2010)

Rebecca 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)

Kelly Ann Jabbusch, Ph.D., Visiting Assistant Professor of Mathematics and Computer Sciences; Willamette University (B.A., 2000); University of Washington (Ph.D., 2007)

Ronald Arthur Janke, Ph.D., Professor of Geography and Meteorology; Marquette University (B.A., 1965); University of Wisconsin-Milwaukee (M.A., 1967); University of Minnesota, Twin Cities Campus (Ph.D., 1976)

Kevin Ladean Jantzi, Ph.D., Assistant Professor of Chemistry; Goshen College (B.A., 1998); University of Wisconsin-Madison (Ph.D., 2004)

Sarah Lynn Jantzi, M.F.A., Assistant Professor of Art; Indiana University (B.A., 1998); American University (M.F.A., 2002)

Zhenhu Jin, Ph.D., Professor of Finance in the College of Business; Shanghai Teachers' University (B.A., 1982); University of Houston (M.A., 1989; M.B.A., 1991; Ph.D., 1994)
Eric W. Johnson, Ph.D., 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., 1997)

Gregg Johnson, Ph.D., Assistant Professor of Political Science; University of Michigan (A.B., 1993); University of Arizona (M.A., 1999; Ph.D., 2003)
${ }^{14}$ Peter Eric Johnson, Ph.D., Associate Professor of Mechanical Engineering; Gustavus Adolphus College (B.A., 1998); Iowa State University of Science and Technology (M.S., 2001; Ph.D., 2003)
Ruth A. Johnston, M.Ed., Lecturer in Education; Ball State University (B.S., 1987); Valparaiso University (M.Ed., 1996)
Renu Juneja, Ph.D., Professor of English; Senior Associate Provost; Delhi University (B.A., 1964; M.A., 1966); The Pennsylvania State University (Ph.D., 1974)
Frederick Graham Kavanagh, Ph.D., Assistant Professor of Foreign Languages and Literatures; Middlebury College (B.A., 1966); Princeton University; University of Virginia (M.A., [Russian], 1970); University of Hawaii (M.A., [Japanese], 1977; Ph.D., 1985)

14 On Sabbatical Leave, Fall Semester

Ann Michele Kessler, M.F.A., Associate Professor of Theatre; University of Michigan-Flint (B.A., 1988); University of Michigan (M.F.A., 1993)

Theresa A. Kessler, Ph.D., R.N., A.C.N.S.-B.C., Professor of Nursing; Purdue University (B.S., 1979); Indiana University (M.S.N., 1981); University of Kentucky (Ph.D., 1993)
Candace C. Kilpinen, J.D., Adjunct Professor of Law; Valparaiso University (B.A., 1989; J.D., 2011)
Jon Thomas Kilpinen, Ph.D., Associate Professor of Geography and Meteorology; Dean, College of Arts and Sciences; Valparaiso University (B.A., 1988); The University of Texas at Austin (M.A., 1990; Ph.D., 1994)
${ }^{15}$ James L. Kingsland, Ph.D., Associate Professor of Political Science and International Relations; Case Western Reserve University (B.A., 1964); Northwestern University (Ph.D., 1972); Valparaiso University (J.D., 1982)
${ }^{16}$ Douglas J. Kocher, Ph.D., Associate Professor of Communication; Valparaiso University (B.A., 1973); University of Tennessee (M.S., 1976; Ph.D., 1979)
Donald Dale Koetke, Ph.D., Senior Research Professor; Concordia College, River Forest (B.S. Ed., 1959); Northwestern University (M.A., 1963; Ph.D., 1968)
Paul Martin Kohlhoff, J.D., Professor of Law; Purdue University (B.S., 1981); Valparaiso University (J.D., 1986)

Leonard Alan Kraft, P.E., Ph.D., Professor of Electrical and Computer Engineering; Purdue University (B.S.E.E., 1970; M.S.E.E., 1972; Ph.D., 1984)
${ }^{17}$ Michael Martin Kumpf, Ph.D., Professor of Foreign Languages and Literatures; Luther College (B.A., 1968); The Ohio State University (M.A., 1972; Ph.D., 1974)

Frederick W. Langrehr, Ph.D., Professor of Marketing in the College of Business; the Paul H. Brandt Professor of Business; Valparaiso University (B.A., 1965); Northern Illinois University (M.S., 1968); University of Alabama (Ph.D., 1978)

Danielle Lavin-Loucks, Ph.D., Assistant Professor of Sociology and Criminology; University of Wisconsin-Madison (B.A., 1996); Indiana University (M.A., 1998; Ph.D., 2002)
Kathryn Elizabeth Leach, Ph.D., Visiting Assistant Professor of Chemistry; Canisius College (B.S., 2003); University of Rochester (M.S., 2005; Ph.D., 2009)

Marc J. LeClere, Ph.D., Associate Professor of Accounting in the College of Business; University of Massachusetts-Amherst (B.B.A., 1979); The Pennsylvania State University (M.S., 1985; Ph.D., 1989)

[^6]Minyong Lee, M.A., Instructor in Physical Education; Chosun University (B.S., 2001); University of Connecticut (M.A., 2005)

Carolyn Sue Leeb, Ph.D., Visiting Assistant Professor 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)
${ }^{18}$ 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)

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)

JoEllen Lind, J.D., Professor of Law; Stanford University (A.B., 1972); University of California, Los Angeles (J.D., 1975); University of Utah

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)

Kenneth 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)

Bruce N. MacLean, M.B.A., Director of Graduate Programs in Management; Lecturer in Management in the College of Business; University of Illinois at Chicago (B.S., 1971); the University of Chicago (M.B.A., 1978)
${ }^{19}$ Timothy Bruce Malchow, Ph.D., Associate Professor of Foreign Languages and Literatures; Macalester College (B.A., 1988); University of WisconsinMadison (M.A., 1992); University of Minnesota, Twin Cities Campus (Ph.D., 2003)
${ }^{20}$ Robert 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)
Stacy E. Maugans, D. Mus., Assistant Professor of Music; Indiana University (B.A., 1992; B. M., 1992; D. Mus. 2000); Arizona State University (M.M., 1993)
${ }^{21}$ Kristen Lee Mauk, A.P., R.N., C.R.R.N.-A, Ph.D., Professor of Nursing; the Kreft Endowed Chair for the Advancement of Nursing Science; Valparaiso University (B.S.N., 1981); Purdue University (M.S., 1991); Wayne State University (Ph.D., 2001)

Daniel Maxin, Ph.D., Assistant Professor in Mathematics and Computer Science; Dunarea de Jos University (B.S., 1997); Purdue University (M.S., 2005; Ph.D., 2007)

18 On Leave of Absence, Spring Semester
19 Director, University Overseas Center, Reutlingen, Germany
20 Retired June 30, 2012
21 On one-half Sabbatical Leave, Fall and Spring Semesters

Michael K. McCuddy, Ph.D., Professor of Management in the College of Business; 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)
${ }^{22}$ Gilbert C. Meilaender, Ph.D., Professor of Theology; the Phyllis and Richard Duesenberg Chair in Christian Ethics; Concordia Senior College (B.A., 1968); Concordia Seminary (M.Div., 1972); Princeton University (Ph.D., 1976)

Jian-yun Meng, M.A.L.S., Lecturer in Foreign Languages and Literatures; Director of Confucius Institute; Nanjing College of Arts (Dip., 1978); Valparaiso University (M.A.L.S., 1993)
Kelly Ann Migler, R.N., M.S.N., Adjunct Assistant Professor of Nursing; Indiana University (B.S.N., 2000); Valparaiso University (M.S.N., 2011)

Carlos Miguel-Pueyo, Ph.D., Associate Professor of Foreign Languages and Literatures; Universidad de Zaragoza (B.A., 1998); University of Illinois (Ph.D., 2006)
Patricia Jean Mileham, M.A., Associate Professor of Library Services; University of Wisconsin-Stevens Point (B.A., 1995); The University of Iowa (M.A., 1998)

Jennifer Lynn Miller, Ph.D., Lilly Fellow and Lecturer in Humanities in Christ College; Valparaiso University (B.A., 2003); University of Minnesota (Ph.D., 2009)
Judith Elaine Kimbrough Miller, M.L.S., Assistant Professor of Library Services; Valparaiso University (B.A., 1970); North Texas State University (M.L.S., 1976)
James Fraser Moore, Ph.D., Professor of Theology; Park College (B.A., 1968); Luther Theological Seminary (M.Div., 1972); University of Chicago (Ph.D., 1982)
Mandy M. Morrill-Richards, Ed.D., Assistant Professor of Psychology; SUNY Binghampton (B.A., 1997); The College of New Jersey (M.A., 2005); University of Memphis (Ed.D., 2009)

Gary A. Morris, Ph.D., Associate Professor of Physics and Astronomy; Associate Dean, College of Arts and Sciences; Washington University in St. Louis (A.B., 1989); Rice University (M.S., 1992; Ph.D., 1995)

Justus Morris, J.D., Assistant Professor of Law; Amherst College (B.A., 2000); Howard University (J.D., 2006)

Susan C. Morris, Ph.D., Assistant Professor in Graduate School, George Washington University (B.S., 1994); Indiana University of Pennsylvania (M.A., 1994); Old Dominion University (M.A., 2000; Ph.D., 2000)
Alan S. Morrisson, J.D., Distinguished Practitioner in Residence in the Law School; Valparaiso University (B.A., 1959; J.D., 1962)
22 On Leave of Absence, Fall and Spring Semesters

Seymour Moskowitz, J.D., Professor of Law;
Columbia University (B.A., 1963); Harvard University (J.D., 1966)

Michael David Murray, J.D., Associate Professor of Law; Loyola College (B.A., 1987); Columbia Law School (J.D., 1990)

Rachael L. Muszkiewicz, M.L.I.S., Assistant Professor of Library Services; Michigan State University (B.S., 1999); University of Bristol (M.A., 2004); Wayne State University (M.L.I.S., 2010)
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27 On Sabbatical Leave, Spring Semester

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${ }^{28}$ Andrew George Richter, Ph.D., Associate Professor of Physics and Astronomy; Valparaiso University (B.S., 1990); Marquette University (M.S., 1992); Northwestern University (Ph.D., 2000)
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28 On Sabbatical Leave, Spring Semester

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${ }^{29}$ Daniel Earl Saros, Ph.D., Associate Professor of Economics; Bowling Green State University (B.S., 1999); University of Notre Dame (M.A., 2001; Ph.D., 2004)

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37 On Leave of Absence, Fall and Spring Semesters
38 On Sabbatical Leave, Fall Semester

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## Adjunct Faculty, 2011-2012

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Mandy L. Waszak Adams, M.A., Adjunct Instructor in Valpo CORE

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Cindy Sue Bobeck, B.S.N., Adjunct Clinical Instructor in Nursing
Roger Bradford, J.D., Adjunct Professor of Law
John A. Branda, M.A., Adjunct Instructor in Mathematics and Computer Science
Jeanne A. Brown, Ph.D., Adjunct Assistant Professor of Psychology

Jeffrey C. Brown, M.M., Adjunct Assistant Professor of Music

Clifford E. Bryan, J.D., Adjunct Instructor in the College of Business

Barbara Ann Bullock, M.S.W., Adjunct Instructor in Social Work

Nadine Burns, M.S.N., Adjunct Clinical Instructor in Nursing
Jonathan Nicolas Busarow, M.M., Adjunct Assistant Professor of Music

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Ann Abrell Coatsolonia, J.D., Adjunct Professor of Law
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${ }^{39}$ Keith Conant, Adjunct Instructor in Music
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42 Deceased June 27, 2011
43 Deceased May 13,2012

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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

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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)

44 Deceased July 7, 2011


President Heckler and Provost Schwehn "sumo wrestled" as part of a Social Action Leadership Team fundraiser last year.

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| Fredrick P. Barton (1970). | New Orleans, LA |
| Ruth E. Doty (1970) | Wescosville, PA |
| Susan A. Ehr (1982) | London, England |
| C. Stephen Hitchcock (1971) | Berkeley, CA |
| Michael G. Hron (1967) | Scottsdale, AZ |
| Kurt K. Kroenke (1973) | Greenwood, IN |
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| David A. Piehler (1977) | Wausau, WI |
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| Peter B. Schmalz (1969) | Landenberg, PA |
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| Loretta M. Van Every (1994). . | Indianapolis, IN |
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| Richard Eynon (1969) | Columbus, IN |
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| Beth Henning (1989) | Chicago, IL |
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| Kenneth Skolnik (1992) | Chicago, IL |
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| Thomas Ertel (1970) . | Wauwatosa, WI |
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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 or Graduate Catalog for further reference.

| ACC | Accounting | GLST | Global Studies |
| :---: | :---: | :---: | :---: |
| ACRS | Actuarial Science | GNST | Gender Studies |
| AE | Arts and Entertainment Administration | GS | General Studies |
|  | (graduate only) | HIST | History |
| AERO | Aeronautical Principles (graduate only) | ICP | International Commerce and Policy |
| AMST | American Studies |  | (graduate only) |
| ART | Art | IDS | Information and Decision Sciences |
| AS | Aerospace Studies (ROTC) | IECA | International Economics and |
| ASTR | Astronomy |  | Cultural Affairs |
| BIO | Biology | ISP | International Service Program |
| BLAW | Business Law | IT | Information Technology |
| BUS | General Business |  | (graduate only) |
| CC | Christ College (Honors College) | KIN | Kinesiology |
| CE | Civil Engineering | LAW | Law (graduate only) |
| CHEM | Chemistry | LS | Liberal Studies |
| CHST | Chinese Studies (graduate only) | MATH | Mathematics |
| CLC | Classical Civilization | MBA | Master of Business Administration |
| COMM | Communication |  | (graduate only) |
| CORE | The Valpo Core | ME | Mechanical Engineering |
| COUN | Counseling (graduate only) | MEM | Master of Engineering Management |
| CPED | Cooperative Education |  | (graduate only) |
|  | (Arts and Sciences) | MET | Meteorology |
| CS | Computer Science | MEUR | Modern European Studies |
| CTS | Computational Science (graduate only) | MGT | Management |
| CTED | Continuing Education | MKT | Marketing |
| EAST | Chinese and Japanese Studies | MMA | Master of Ministry Administration |
| ECE | Electrical and Computer Engineering |  | (graduate only) |
| ECON | Economics | MS | Military Science (Army ROTC) |
| ED | Education | MUS | Music |
| ENGL | English | NS | Natural Science |
| ENVS | Environmental Studies | NUR | Nursing |
| FIN | Finance | PHIL | Philosophy |
| FLC | Chinese | PHYS | Physics |
| FLF | French | POLS | Political Science and |
| FLGK | Greek |  | International Relations |
| FLGR | German | PSJ | Peace and Social Justice |
| FLH | Hebrew | PSY | Psychology |
| FLJ | Japanese | SOC | Sociology |
| FLL | Latin | SOCW | Social Wok |
| FLS | Spanish | SPED | Special Education |
| GE | General Engineering | SPSY | School Psychology (graduate only) |
| HADM | Health Administration (graduate only) | STAT | Statistics |
| HCL | Health Care Leadership | THEO | Theology |
| HUED | Humane Education (graduate only) | THTR | Theatre |
| GEO | Geography |  |  |

## Courses for General Education Requirements

## Cultural Diversity

| AAA | 900-949 | International Study Semesters Abroad (Off Campus Program only.) |
| :---: | :---: | :---: |
| AAA | 950, 960, | 965 National Study Semesters Off Campus (Off Campus Program only.) |
| CLC | 290 | (only when topic is) 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 | 470 | Home, School, and Community Relationships |
| ENGL | 368 | Teaching of English to Speakers of Other Languages: Theory and Methods. |
| ENGL | 369 | Teaching of Engish to Speakers of Other Languages: Theory and Practices. |
| 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 |
| GS | 202 | Study Circles: Civic Engagement |
| 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 | 329 | Revolutionary Movements in Twentieth Century Latin America |
| HIST | 333 | Latin America in the Cold War Era |
| HIST | 335 | Modern Mexico: Competing Visions of the Nation |
| 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 |
| HCL | 418 | Global Health Care Systems |
| MUS | 390 | Music in World Cultures |
| PHIL | 120 | Democracy, Education, and Multiculturalism |
| PHIL | 220 | Asian Philosophy |
| POLS | 110 | Introduction to Politics |
| POLS | 130 | Comparative Politics |
| POLS | 335 | Politics of Developing States |
| SOCW | 330 | Diverse Populations: Human Rights \& Justice |
| SOC | 150 | Introduction to Anthropology |
| SOC | 210 | Contemporary Social Problems |
| SOC | 275 | Systems of Social Stratification |
| THTR | 334 | Theatre of the Non-Western World |


| THEO 317 | The World of the New Testament |
| :--- | :--- |
| THEO 333 | Black Theology and Black Church |
| THEO 345 | The Church in the World |
| THEO 353 | Topic: Christian Response to Social Victims |
| THEO 361 | Indian Religions and Culture. |
| THEO 362 | Islamic Religion and Culture |
| THEO 363 | Religions of China and Japan |
| THEO 364 | Native American Religions |
| THEO 367 | Topics in South Asian Religions |
| MGT 440 | Cross-Cultural Management |
| NUR 212 | Introduction to Community-Based Nursing and Health Promotion |
| NUR 360 | Interpersonal Service Learning in Health in Central America |
| NUR 418 | Global Health Issues |

## Humanities: Fine and Performing Arts

| ART | 101 | Ancient to Medieval Art History |
| :---: | :---: | :---: |
| ART | 102 | Renaissance to Modern Art History |
| ART | 121 | Drawing |
| ART | 130 | Introduction to 2D and 3D Design |
| ART | 132 | Introduction to Design and Digital Media |
| ART | 151 | Ceramics |
| ART | 162 | Photography I |
| ART | 163 | Introduction to Digital Photography |
| ART | 210 | Museum Studies |
| ART | 215 | Printmaking |
| ART | 221 | Painting |
| ART | 224 | Digital Video Art |
| ART | 227 | Figure Drawing |
| ART | 231 | Graphic Design |
| ART | 251 | Sculpture |
| ART | 311 | Topics in the Theory and History of Art |
| ART | 318 | Nineteenth Century European Art |
| ART | 319 | Early Twentieth Century European Art |
| 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 (Off Campus Program only.) |
| ENGL | 231 | Film Aesthetics |
| ENGL | 301 | Introduction to Creative Writing |
| ENGL | 423 | Short Story Writing |
| ENGL | 424 | Poetry Writing |
| ENGL | 425 | Creative Nonfiction |
| ENGL | 431 | Advanced Composition |
| FLF | 271 | French Theatre Practicum |
| FLGR | 260 | German Film Studies |
| FLGR | 271 | German Drama Practicum |
| FLJ | 250 | Topics in Japanese Literature and the Fine 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 and Liturgical Theology |
| PHIL | 210 | Philosophy of Art |
| THEO 456 | Church Music and Liturgical Theology |  |
| THTR 101 | Introduction to Theatre |  |
| 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)
CLC 310 Greek Civilization
CLC 311 Roman Civilization

## Humanities: Literature

| ENGL 200 | Literary Studies |  |
| :--- | :--- | :--- |
| CLC | 200 | Classical Literary Studies |
| FLF | 200 | French and Francophone Literary Studies |
| FLF | 220 | Approaches to French Literature |
| FLGR | 200 | German Literary Studies |
| FLGR | 220 | Approaches to German Studies |
| FLJ | 200 | Japanese Literary Studies |
| FLS | 200 | Hispanic Literary Studies |
| FLS | 220 | Selected Readings in Hispanic Literature |

## Humanities: Philosophy

Any 3-credit course in Philosophy (PHIL) except PHIL 145 or PHIL 150
CHEM 490 The Scientific Endeavor (when cross-listed with CC 300)

| NS | 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 and International Relations (POLS)
A 3-credit course from Sociology (SOC)

| ED | 306 | School \& Society |
| :--- | :--- | :--- |

ENGL 444 Sociolinguistics
GEO 101 World Human Geography
GEO 102 Globalization and Development
GEO 200 American Ethnic Geography

| GEO | 201 | Economic Geography <br> GEO 210 |
| :--- | :--- | :--- | | (only when topic is) Challenges in Global Health |  |  |
| :--- | :--- | :--- |
| 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 | 385 | (only when topic is) Field Studyto Yellowstone National Park |
| 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 | Diverse Populations: Human Rights \& Justice |  |
| NUR | 390 | (only when topic is) Topic: Challenges in Global Health |

## Natural Science

| ASTR | $101 / 101 \mathrm{~L}$ 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 | $111 / 111$ L Essentials of Physics |  |
| PHYS | $141 / 141$ L Newtonian Mechanics |  |
| PHYS | $151 / 141 \mathrm{~L}$ | Newtonian Mechanics-Honors |
| PSY | $110 / 111$ | General Psychology |
| NS | 101 | Introduction to Forensic Science |
| NS | 102 | Science of the Indiana Dunes |
| NS | 103 | Practical Stream Stewardship |
| NS | 104 | Principles of Evolution |

## Quantitative Analysis

| CS | 115 | Computers and Computation |
| :--- | :--- | :--- |
| MATH 120 | Mathematical Ideas |  |
| MATH 122 | Applied Calculus |  |
| MATH 124 | Finite Mathematics |  |
| MATH 131 | Calculus I |  |
| MATH 151 | Calculus I - Honors |  |
| PHIL 145 | Elementary Logic and Critical Thinking |  |
| PHIL | 150 | Logic and Critical Thinking |
| POLS | 260 | Research Methods in Political Science |
| PSY | 201 | Statistical Methods |
| STAT 140 | General Statistics (AP credit only) |  |

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# VALPARAISO UNIVERSITY 

Location: Valparaiso, Indiana--Population 31,000<br>45 Miles Southeast of Chicago; 13 Miles South of Lake Michigan<br>Campus Size: 320 Acres, 60 Buildings<br>Control: Independent<br>Religious Affiliation: Lutheran

Major Academic Divisions (Approximate Enrollments, Fall 2011)

College of Arts and Sciences-1700
College of Nursing-420

College of Business-390
Christ College (Honors)-310
Law School-570

College of Engineering-310
Graduate Division-560

## 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
National Association of Schools of Music
11250 Roger Bacon Drive, Suite 21, Reston, VA, 20190; Tel: 703-437-0700; Fax: 703-437-6312
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

## MAJOR AFFILIATIONS

The American Association of Colleges of Nursing
The American Council on Education
The American School of Classical Studies at Athens
The American Schools of Oriental Research
The American Society for Engineering Education
The Associated New American Colleges
The Association of American Colleges and Universities
The Association of Graduate Liberal Studies Programs
The Association to Advance Collegiate Schools of Business
The Center for Research Libraries
The Council of Applied Masters Programs in Psychology
The Lutheran Education Association



[^0]:    1 Completion of level 303 is required.
    2 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.

[^1]:    3 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).
    4 Completion of MUS 453 is required.
    5 Completion of MUS 453 is required; total may include MUS 239.

[^2]:    1 Note that six of these credits are met through General Education requirements, (e.g. THEO 200 and a 300-level THEO course).

[^3]:    English 4
    Algebra, geometry, and advanced algebra. ..... 3

[^4]:    1 On Sabbatical Leave, Spring Semester

[^5]:    8 On Sabbatical Leave, Fall and Spring Semesters

[^6]:    15 Retired June 30, 2012
    16 On Sabbatical Leave, Fall Semester; retired June 30, 2012
    17 On Sabbatical Leave, Fall Semester; retired June 30, 2012

[^7]:    23 On Sabbatical Leave, Fall Semester
    24 On Sabbatical Leave, Spring Semester
    25 Director, University Overseas Center, Hangzhou, China, Fall
    Semester

[^8]:    29 On Sabbatical Leave, Fall and Spring Semesters
    30 On Sabbatical Leave, Fall Semester
    31 Director, University Overseas Center, Cambridge, England

[^9]:    33 Resigned, December 31, 2011
    34 On Leave of Absence, Fall Semester
    35 On Leave of Absence, Spring Semester

[^10]:    36 Retired June 30, 2012

