

# Bulletin 2011-2013



SAINT VINCENT COLLEGE

### Accreditations

Association of Collegiate Business Schools and Programs  
Department of Education of the State of Pennsylvania  
Middle States Association of Colleges and Schools

### Memberships

American Association of Collegiate Registrars and Admissions Officers  
Association of Catholic Colleges and Universities  
Association of American Colleges and Universities  
Association of Governing Boards of Universities and Colleges  
Association of Independent Colleges and Universities of Pennsylvania  
C-Cue, Inc. (Consortium for Computing in Undergraduate Education, Inc.)  
College Entrance Examination Board  
Cooperative Education Association of Pennsylvania  
Council for the Advancement and Support of Education (CASE)  
Council of Independent Colleges  
Economic Growth Connection of Westmoreland  
Latrobe Area Chamber of Commerce  
Laurel Highlands, Inc.  
Ligonier Valley Chamber of Commerce  
Middle States Association of Collegiate Registrars and Officers of Admission  
National Association of College Admissions Counselors  
National Association of College and University Business Officers  
National Association of Colleges and Employers  
National Association of Foreign Student Advisors  
National Association of Independent Colleges and Universities  
National Association of Student Financial Aid Administrators  
National Catholic Educational Association  
National Collegiate Athletic Association (NCAA)  
Pennsylvania Association of Colleges and Universities  
Pennsylvania Association of College Admissions Counselors  
Pennsylvania Association of Colleges and Employers  
Pennsylvania Association of Student Financial Aid Administrators  
Pennsylvania School Counselors Association  
Pennsylvania Association of Colleges for Teacher Education  
The College Board  
Westmoreland Cooperating for Economic Development

### Affiliations

Duquesne University (cooperative program)  
Fu Jen Catholic University, Taiwan  
Lake Erie College of Osteopathic Medicine  
Ohio College of Podiatric Medicine (podiatry)  
Pennsylvania State University (3-2 engineering)  
Pennsylvania College of Podiatric Medicine (podiatry)  
Saint Vincent Seminary  
Seton Hill University (cross-registration)  
Shandong University, China  
The Catholic University of America (3-2 engineering)  
University of Pittsburgh (3-2 engineering)

### Participation

Advanced Placement Program (AP)  
Air Force Reserve Officer Training Corps (at University of Pittsburgh)  
Bureau of Vocational Rehabilitation  
College Level Examination Program (CLEP)  
Guaranteed Student Loan Program  
Pell Grant Program  
Pennsylvania Higher Education Assistance Agency  
Perkins Loan  
Supplemental Educational Opportunity Grants

The statements in this *Bulletin* are for information only and do not constitute a Contract between the student and Saint Vincent College. The College reserves the right to change any policy, requirement, course offering, or fee; and also reserves the right to exclude students whose conduct or academic standing is deemed by the College not to be in accord with the requirements set forth in this *Bulletin*.

Saint Vincent College subscribes to a policy of equal opportunity. In so doing, Saint Vincent does not discriminate against any individual on the basis of race, color, sex, religion, age, veteran status, ethnic origin or handicap in any of its programs, activities or employment decisions. The Director of Human Resources, Saint Vincent College, Latrobe, Pennsylvania 15650-2690 is the officer with responsibility for overseeing the implementation of this equal opportunity policy and the affirmative action plan.

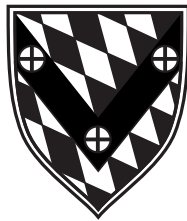
This school is authorized under Federal law to enroll nonimmigrant alien students.

Saint Vincent College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, 215-662-5606. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Commission on Recognition of Postsecondary Accreditation.

**FOR INFORMATION about admission, contact:**

**Office of Admission and Financial Aid  
Saint Vincent College  
300 Fraser Purchase Road  
Latrobe, Pennsylvania 15650-2690**

**Phone 724-805-2500  
1-800-782-5549  
e-mail: [admission@stvincent.edu](mailto:admission@stvincent.edu)  
home page: [www.stvincent.edu](http://www.stvincent.edu)**



SAINT VINCENT COLLEGE

# 2011-2012 Calendar

## Fall Semester 2011

<b>August 29</b>	Final registration and adjustments; Classes begin
<b>September 5</b>	Labor Day; no classes
<b>September 6</b>	Last Day for adding courses
<b>September 13</b>	Last Day for withdrawal without permanent record
<b>September 14-October 28</b>	Withdrawals receive "W"
<b>September 23</b>	Last day to change to P/F designation; last day to change to Audit
<b>September 29</b>	Spring & Summer 2011 incomplete grades not changed become "F"
<b>October 12</b>	Mid-semester grades due
<b>October 15-18</b>	Extended weekend for undergraduates begins after last class on October 14
<b>October 19</b>	Graduate Fall Term "F2" courses begin
<b>October 19</b>	Classes resume
<b>October 31</b>	Withdrawals receive WF
<b>November 2, 3, 4, 7 &amp; 8</b>	Registration for Spring Semester 2012
<b>November 17</b>	Founders' Day (classes canceled 3:30pm – 7pm)
<b>November 23-27</b>	Thanksgiving vacation begins after last class on November 22
<b>November 28</b>	Classes resume
<b>December 9</b>	Last day of class
<b>December 10, 11</b>	Reading Days
<b>December 12-15</b>	Final Examinations
<b>December 15</b>	Graduating senior grades due at noon
<b>December 17</b>	December Commencement
<b>December 20</b>	Final grades are due at noon

## Spring Semester 2012

<b>January 15</b>	Students return
<b>January 16</b>	Final registration and adjustments; Classes begin
<b>January 23</b>	Last Day for adding courses
<b>January 30</b>	Last Day for withdrawal without permanent record
<b>January 31-March 23</b>	Withdrawals receive "W"
<b>February 10</b>	Last day to change to P/F designation; last day to change to Audit
<b>February 16</b>	Fall 2011 incomplete grades not changed become "F"
<b>February 29</b>	Mid-semester grades due for First Year Students
<b>March 3-11</b>	Spring break for undergraduates; begins after last class on March 2
<b>March 12</b>	Classes resume
<b>March 12</b>	Graduate Spring Term "W2" course begin
<b>March 26</b>	Withdrawals receive WF
<b>April 5-9</b>	Easter Vacation begins after last class on April 4
<b>April 10</b>	Classes resume
<b>April 11, 12, 13, 16 &amp; 17</b>	Registration for Fall Semester 2012
<b>April 25</b>	Honors Convocation and Undergraduate Conference (classes cancelled from 11:30-7:00)
<b>May 4</b>	Last day of class
<b>May 5-6</b>	Reading Days
<b>May 7-10</b>	Final examinations
<b>May 10</b>	Graduating senior grades are due by noon
<b>May 12</b>	Commencement
<b>May 15</b>	Final grades are due at noon
<b>May 21</b>	Summer Session begins

# 2012-2013 Calendar

## Fall Semester 2012

<b>August 27</b>	Final registration and adjustments; Classes begin
<b>September 3</b>	Labor Day; no classes
<b>September 4</b>	Last Day for adding courses
<b>September 11</b>	Last Day for withdrawal without permanent record
<b>September 12-October 26</b>	Withdrawals receive "W"
<b>September 21</b>	Last day to change to P/F designation; last day to change to Audit
<b>September 27</b>	Spring & Summer 2012 incomplete grades not changed become "F"
<b>October 10</b>	Mid-semester grades due
<b>October 13-16</b>	Extended weekend for undergraduates begins after last class on October 12
<b>October 17</b>	Classes resume
<b>October 29</b>	Withdrawals receive WF
<b>October 30, November 1, 2, 5 &amp; 6</b>	Registration for Spring Semester 2013
<b>November 15</b>	Founders' Day (classes canceled 3:30pm – 7pm)
<b>November 21-25</b>	Thanksgiving vacation begins after last class on November 20
<b>November 26</b>	Classes resume
<b>December 7</b>	Last day of class
<b>December 8-9</b>	Reading Days
<b>December 10-13</b>	Final examinations
<b>December 13</b>	Graduating senior grades due at noon
<b>December 15</b>	December Commencement
<b>December 18</b>	Final grades are due at noon

## Spring Semester 2013

<b>January 13</b>	Students return
<b>January 14</b>	Final registration and adjustments; Classes begin
<b>January 21</b>	Last Day for adding courses
<b>January 28</b>	Last Day for withdrawal without permanent record
<b>January 29-March 22</b>	Withdrawals receive "W"
<b>February 8</b>	Last day to change to P/F designation; last day to change to Audit
<b>February 14</b>	Fall 2012 incomplete grades not changed become "F"
<b>February 27</b>	Mid-semester grades due
<b>March 2-10</b>	Spring break for undergraduates; begins after last class on March 1
<b>March 11</b>	Classes resume
<b>March 11</b>	Graduate Spring Term "W2" course begin
<b>March 25</b>	Withdrawals receive WF
<b>March 28-April 1</b>	Easter Vacation begins after last class on March 27
<b>April 2</b>	Classes resume
<b>April 10, 11, 12, 15 &amp; 16</b>	Registration for Fall Semester 2013
<b>April 24</b>	Honors Convocation and Undergraduate Conference (classes cancelled from 11:30-7:00)
<b>May 3</b>	Last day of class
<b>May 4-5</b>	Reading Days
<b>May 6-9</b>	Final examinations
<b>May 9</b>	Graduating senior grades are due at noon
<b>May 11</b>	Commencement
<b>May 14</b>	Final grades are due at noon
<b>May 20</b>	Summer Session begins

\*Students enrolled in courses at Seton Hill University under the cross-registration agreement should obtain a calendar from SHU with the applicable dates.

# Introduction to the College

## Mission Statement

Saint Vincent College is an educational community rooted in the tradition of the Catholic faith, the heritage of Benedictine monasticism, and the love of values inherent in the liberal approach to life and learning. Its mission is to provide quality under-graduate and graduate education for men and women to enable them to integrate their professional aims with the broader purposes of human life. The programs, activities, and encounters that make up student life at Saint Vincent College encourage the intellectual gifts, professional aptitudes and personal aspirations of students to mature harmoniously.

## Catholic, Benedictine and Liberal Arts Values

Central to the Mission of the College are its Catholic tradition, its Benedictine heritage, and its commitment to liberal arts education. Outlined below are some of the values of a Catholic, Benedictine, liberal arts education as defined and operated upon by the Saint Vincent College community.

### Catholic

Saint Vincent College seeks to provide an understanding of the positive contributions which the Catholic Church has made, and continues to make, to human progress. Faculty, administrators, staff, and students of all faiths work together in a common search for truth in an environment that does the following:

- Affirms that the love of God and faith in Jesus Christ are authentic values for believers. The life of faith and the life of learning are regarded as inclusive and mutually compatible; as expressed in the College motto, *veri justique scientia vindex*, “learning is the best advocate of truth and justice.”
- Represents a sacramental view which consecrates all visible creation as a pledge, reminder, and active instrument of God’s invisible presence and grace.
- Supports the integration of religious and temporal values in everyday life.
- Promotes appreciation for the positive contributions of all peoples and cultures to world civilization. In this sense, Saint Vincent is truly “catholic,” ecumenical, and international.

### Benedictine

The traditional Benedictine apostolate of education is characterized by an appreciation of truth wherever it is found and by respect for the unique person and talents of every student. In an authentic Benedictine environment, students are not just objects of an educational enterprise; they are valued partners in a common search for truth and beauty. Saint Vincent College is grounded in the following core values of Benedictinism:

- Hospitality, as exemplified by a tolerant spirit that recognizes the mystery of God’s presence in all creation and the sacred dignity of each person.
- Commitment to a concept of community that advocates tranquility and order and is nourished by mutual respect, appreciation, and charity. Even in times of historical and personal upheaval, Benedictine life seeks to preserve peace and solidarity, maintained by the communal effort of prayer and work.
- Care and concern for each individual as evidenced in personal interactions that anticipate the needs of others, bear patiently with others, and promote the personal growth of others.
- Stewardship for all work spaces, living spaces, and the natural environment.

## Liberal Arts and Sciences

Liberal arts education is integrative, challenging students to explore the principles, perspectives, and goals of many different disciplines and modes of learning. Saint Vincent’s particular approach to liberal arts education, undergirded by the values of its Catholic, Benedictine heritage, provides an education for life and for lifelong learning. It espouses a love of learning and a belief in the intrinsic worth of higher education. The College seeks to instill the following educational virtues:

- Facility to comprehend particular phenomena conceptually and to look for patterns and regularities in experience.
- Ability to evaluate ranges of evidence and to revise previous theory or hypotheses accordingly.
- Skill in discovering relationships between seemingly divergent phenomena.
- Ability to be an independent learner rather than a mere consumer of others’ interpretations.
- Facility to articulate and express one’s thoughts clearly.
- Self-assurance in adhering to mature social and ethical values, coupled with tolerance for alternate values in others.
- Skill in making informed decisions and courage to act on them.
- Appreciation for the fine arts, especially art, music, and literature.
- Receptivity to uncommon opinions and unfamiliar cultures.

## An Invitation to Learning

During your college years, you as a student are faced with some important decisions. One of them is to determine your approach to education—your own “aims and objectives.” You will have to determine whether your objective is merely to fulfill the minimum requirements in order “to get a degree,” or whether it is to become more creatively engaged in learning as an integral part of your life.

This **Bulletin** concerns itself for the most part with the less significant objective, which is the first. It contains the basic information about courses, procedures, and requirements necessary for obtaining a degree: it is your responsibility to have and to use this information. If you have problems or questions about this part of college life, be sure to ask your faculty advisor for help. If you are in the process of changing majors or career plans, a thorough discussion with your faculty advisor and with a member of the Career Services staff is more imperative. Finally, if you have unresolved problems and don’t know where to turn, stop to see the Dean of Studies. The Dean of Studies may know resources at the College or elsewhere with which you are not familiar.

The more significant objective, which touches upon a personal commitment to learning, is more difficult to deal with than information about degree requirements. Your openness to new experiences, your friendships with faculty and fellow students are more essential to the realization of this objective than the information contained in any college bulletin.

As a preamble, faculty members will tell you that if you wish to be serious about learning, you must practice critical reading and listening in all your courses: you must be able to tell the difference between essentials and non-essentials. And you must be able to express yourself well, both verbally and in writing. Few people have been able to achieve these essential skills for learning without diligently working at them over a long period of time.

In your college experience try to learn as much as you can about change: your personal and spiritual developmental change, social change, change we call failure, even the change we call death. Many of the courses of the Core Curriculum are designed to help you think about change—from a chemical reaction to a political revolution or a religious experience. Secondly, it is impor-

tant to have possible careers in mind in determining what you will learn; and it is important to gain a reasonable mastery in some field while at college. However, it would be a mistake to think of your college education exclusively in terms of the work you want to do. The much larger part of your waking hours, even before retirement, will be taken up by self-directed activities. Courses in the Core Curriculum outside your major are important for developing meaningful self-directed activities outside the world of paid work. In addition, social service, religious activities, art, meditation, dance, drama, music, sports, friendships are all elements of a good college experience. The Rule of Saint Benedict is a classic text about achieving a peaceful balance between work and other activities and values of life. Finally, your personal philosophy about learning should take cognizance of the fact that human beings must live in the context of a variety of systems. Your college education will help you learn about systems: how they work, and how to make them work justly for you and your neighbor. To achieve this, however, it is not sufficient to learn about political, economic, and social systems only in class. First-hand experience through participation in clubs and organizations seems necessary to learn how to negotiate with other interest groups, and how to get things done in an effective and morally acceptable way. You may be able to start a new organization to meet a need, many extracurricular activities at Saint Vincent were begun and are run by students.

These dimensions of learning which touch upon a person's relation to the basic realities of life are also suggested when the College describes its "viewpoint and tendencies" as Catholic, Benedictine, and liberal. A college education at Saint Vincent provides the opportunity for a student to come to grips with some of the basic questions of life in company with faculty and fellow students.

## History and Heritage

Saint Vincent Archabbey and College was founded in 1846 by Boniface Wimmer, a monk from the Benedictine Abbey of Metten in Bavaria.

Wimmer came to America with the intention of educating the sons of German immigrants and training a native clergy for the German-speaking peoples of the United States. He settled on the site of a parish established for English and Irish Catholics in 1789, and very quickly learned that his monks would not be able to limit their attention to Germans alone. With the aid of several American bishops, friends and benefactors in Europe, and a strong community of Benedictine monks at the monastery of Saint Vincent, he established the first Benedictine college in the United States. From modest beginnings the college grew rapidly, and on 18 April 1870 the State Legislature of Pennsylvania incorporated the school, empowering it "to grant and confer degrees in the arts and sciences as are granted in other colleges and universities in the United States, and to grant to graduates, or persons on whom such degrees may be conferred, diplomas or certificates as is usual in colleges and universities."

From its earliest days Saint Vincent College has striven to embody the ideals and character of the fifteen-hundred-year-old heritage of Benedictine education and scholarship. Based firmly on the ideal of Christian community, this heritage has contributed to both the survival and dissemination of Western culture. It has been an enduring heritage because of its capacity to adjust to the exigencies of successive ages. For almost one hundred and fifty years the monks of Saint Vincent have worked to exemplify and to carry on this living tradition. From their ranks men have established Benedictine colleges and schools in Minnesota, Kansas, North Carolina, New Jersey, Illinois, and Georgia, among other places.

In the words of a college catalogue of the 1850's, Saint Vincent is located in an "elevated and healthy" area. Situated on a foothill of the Alleghenies, the school commands a panoramic

view of the countryside. In January of 1963 a fire destroyed part of the campus and in the years which have followed a new age in the history of the college has begun. Out of the ashes of the past a new Saint Vincent has emerged. With a deep awareness of the heritage and tradition which is its foundation, the community has once again turned its face toward the future. And perhaps no better image of this dynamic commitment to a creative relationship between old and new exists than the campus itself, whose newly constructed and aesthetically pleasing modern buildings blend harmoniously with the older structures built by the pioneer monks themselves.

Saint Vincent College became coeducational in 1983 as a major step to strengthen all aspects of the community life and educational services of the College. The decision was based on a belief that the College was in a strong position to offer men and women the opportunity of personal development and solid career preparation in a wholesome environment grounded in the time-tested Benedictine educational and religious tradition.

Saint Vincent College, along with the other units of the Saint Vincent Community—Archabbey, Seminary and Parish—observed the 150th anniversary of its founding in 1996 with an 18-month series of activities and events which recognized the rich history and heritage of Saint Vincent while focusing attention on planning and preparing for the future.

## Seton Hill University Cross-Registration Program

In order to present wider opportunities to the students of Saint Vincent College and Seton Hill University, an academic cross-registration program exists between the two institutions. Library facilities at both institutions are available to all students and members of faculties at both colleges. This program has been designed to give the students of each institution every opportunity to advance academically, at moderate costs, within the common perspectives of these two Catholic institutions.

## Duquesne University and Saint Vincent College Cooperative Program

Duquesne University and Saint Vincent College offer the following cooperative programs: Law, Business Administration, Occupational Therapy, Physical Therapy, Physician Assistant, and Pharmacy. This collaboration allows individuals to pursue an undergraduate liberal arts education in preparation for graduate studies in a professional field. Additional information is available in the *Bulletin* in the Pre-Health Professions, Pre-Law, English, History, Sociology/Anthropology, Political Science, Public Policy Analysis, and Business Administration sections.

## The Campus

In a pattern characteristic of many Benedictine communities, the first buildings were grouped in a quadrangle. At least ten of the original buildings were "home-made." That is, the architects and workmen were Benedictines who cut the trees, sawed the timber, and fashioned clay into bricks.

*Alcuin Hall* (1964) is used for social affairs and recreation and features a glass wall that provides a dramatic view of the College athletic fields and the mountains to the east. It also houses a day care center.

*Alfred Hall* (1907) houses the administration offices and also provides space for language laboratories, computer labs, classrooms and some faculty offices.

*Andrew Hall* (1905) extends from the Archabbey Basilica and contains the monastic refectory.

*Anselm Hall* (1875-1879) connecting Andrew Hall with Placid Hall provides space for small dining-meeting rooms.

*Aquinas Hall* (1952) connects Wimmer Hall with the Archabbey Basilica and provides classrooms for the seminary.



*Archabbey Basilica* (1892-1905) dominates the campus at Saint Vincent. The cornerstone was laid in 1892, and the consecration took place August 24, 1905. Beneath the Basilica is the Crypt, which contains altars and many works of modern art in glass, wood, stone, and acrylic and oil paintings. The Basilica was completely restored in 1996.

*Aurelius Hall* (1923) served as a College residence hall until 2002 and traditionally housed freshmen. Today, Aurelius Hall houses the McKenna School of Business, Economics, and Government and serves as a residence hall.

*Chapel of St. Gregory the Great* (1998) is the Seminary chapel.

*Community Center* (1979) adjoins Anselm, Benedict and Placid Halls. It houses the main student dining room and food preparation facilities.

*Elizabeth J. Roderick Center* (1998) houses Seminary and Archabbey offices, seminary residence rooms and guest rooms.

*Gerard and Bonaventure Halls* (1963) are residence halls providing accommodations for 459 students in double rooms.

*Headmaster Hall and Placid Hall* (built in sections from 1855-1877) house the post office, dining and conference rooms, academic affairs, the faculty commons, faculty offices and classrooms for the School of Humanities and Fine Arts, as well as the School of Social Science, Communication and Education.

*Mary, Mother of Wisdom Chapel* (2003) is the College Student Chapel.

*Monastery Building* (1967) is the home of the Benedictine monks.

*Parish Center* (1997) provides a gathering space for parish activities, parish offices and the Basilica Gift Shop.

*Prep Hall* (1998), named in honor of all of the alumni of the former Saint Vincent Preparatory School and in thanksgiving for the leadership of Prep alumni in providing the funding necessary to make the building a reality. It houses "smart" classrooms, multimedia laboratory, media suite, communication and education faculty offices.

*Robert S. Carey Student Center* (1952-1954; The Frank and Elizabeth Resnik Swimming Pool, 1993; Student Union, 1996, 2003) covering more than an acre of ground, contains the gymnasium, Performing Arts Center, swimming pool, Mary, Mother of Wisdom Student Chapel, wellness center, book center, snack bar, student union, classrooms, game room, fitness center with free weights, weight machines, and cardiovascular machines, art gallery, art studios, music practice rooms, and the fine arts department and education faculty offices and classrooms.

*Rooney Hall* (1995) is a College residence hall that houses 125 students in double rooms and 50 students in 15 apartments.

*Saint Benedict Hall* (2002) is the residence hall for first-year students. The hall accommodates 368 students in double rooms.

*The Sis and Herman Dupré Science Pavilion* houses the Herbert W. Boyer School of Natural Sciences, Mathematics, and Computing and is currently under renovation. The project will renovate nearly 60,000 square feet of space and add another 45,000 square feet of new construction to the original Science Center built in 1969. All the disciplines – natural sciences, mathematics, and computing – share classrooms, lab space, computer labs, conference rooms, lounges and a 75-seat lecture hall. A three-story all-glass atrium serves as a window to the natural world and a welcoming gateway into the building.

*Leander Hall* (1913) is a residence hall for seminary students and monastic guests.

*Wimmer Hall* (1952) is a College residence hall. It has 135 private rooms.

The names of most of the buildings honor early Benedictine educators and deceased abbots who served the College as president.

## The Library

Benedictine institutions have traditionally granted a place of honor to the library. The Latimer Family Library continues this tradition by providing a climate-controlled repository of the institution's bibliographic holdings and a continually growing resource in support of the College's teaching mission.

Borrowing privileges are available to enrolled students, faculty, administrators and staff members of the College. The Saint Vincent identification card serves as the Library card. The Library is open to patrons 89 hours each week when school is in session. Special hours are in effect during vacation periods and on holidays; schedule changes are posted in the Library, distributed to the offices of the College, and available on the College website.

Private study carrels and tables are available throughout the Library. A central reference room provides access to more than 3,500 resource titles such as encyclopedias, abstracts, dictionaries, indexes, handbooks, atlases, concordances, and gazetteers. The periodical area displays approximately 400 current periodical subscriptions arranged alphabetically by title. A collection of audio tapes and a video and DVD collection with monitor/VCRs and monitor/DVD players are included in this section. The Library also has extensive microfilm and microfiche collections with appropriate readers and printers available for patron use.

The collection contains nearly 280,000 print volumes, 47,000 bound periodicals and approximately 100,000 microforms. The Library houses unique resources in religion and theology and special collections of Pennsylvania and Benedictina. The Library also safeguards a collection of rare books housed in climate-controlled vault; access to this collection is available by special request. The collection is classified according to the Library of Congress classification system. The Library uses a fully automated catalog (OPAC), utilizing the integrated system of Innovative Interfaces, Inc. Electronic searches are made through EBSCOhost, LexisNexis, and JSTOR, which provide online access to an extensive list of bibliographic and full-text information. The Library currently houses a computer lab, and has both hard-wire connections and wireless access for laptop users to access the campus network and the Internet.

Materials not available at Saint Vincent Library may be requested from other libraries through the Interlibrary Loan service (ILL). This service is available through the Assistant Public Services Librarian, at the Circulation Desk, or by completing the on-line ILL Request Form on the Saint Vincent College website.

# Admission

The Office of Admission and Financial Aid encourages students to come to campus and experience firsthand the environment and the spirit of Saint Vincent College.

The Office is open from 8:30 a.m. to 4:30 p.m. on weekdays and by appointment on most Saturdays. Student guides are available for tours of the campus.

Visitors can call 1-800-782-5549 or visit [www.stvincent.edu](http://www.stvincent.edu) in advance to arrange an appointment. Admission counselors will be better able to advise prospective students whose test records, secondary school grade reports or college transcripts are available for reference.

## Admission Policy

Saint Vincent College has a rolling admission policy; that is, the applicant is notified of the decision of the Admission Committee soon after all credentials are received.

After acceptance, the applicant may reserve a place on the roster at Saint Vincent College by making a deposit of \$100.00 required of all students, and if residence on campus is desired, an additional \$100.00 to reserve a room. This deposit will be credited to the applicant's account but it is not refundable.

## Freshman Applicants

An applicant for the freshman class should submit the following to the Office of Admission and Financial Aid:

1. A completed application form with the non-refundable \$25.00 application fee or fee waiver form.
2. An official transcript sent directly to Saint Vincent College from the guidance office at the secondary school of graduation.
3. Test results from the Scholastic Assessment Test (SAT 1) or from the American College Testing Program (ACT).

## Subjects Required for Admission

Adequate preparation for college is an important determinant for a successful college education.

Fifteen secondary school academic units are required for admission to Saint Vincent College. These fifteen units must include 4 units of English, 3 or more units of college preparatory mathematics, 1 unit of laboratory science, and 3 units of social science; 2 units of a foreign language are preferred among 5 elective units.

Engineering students must have 1 unit in plane geometry, 1 unit in intermediate algebra, 1 unit in physics, and 1/2 unit in trigonometry in addition to the above required for admission.

Music and Music Performance students must audition for acceptance. Art Studio, Graphic Design, and Art Education students must submit a portfolio for acceptance to the Fine Arts Department.

If an applicant's secondary school program differs significantly from that outlined above, the Office of Admission and Financial Aid should be consulted.

## Credit by Examination and Credit for Experiential Learning General Policy

A maximum 62 credits for Advanced Standing may be earned through programs such as Advanced Placement Tests, CLEP, PEP, Armed Forces Course Equivalencies, Credit for Experiential Learning, and all other such evaluating mechanisms.

## Advanced Placement Tests

Saint Vincent College awards Advanced Standing Credit to students who achieve scores of 3, 4 or 5 on any Advanced Placement Test of the College Entrance Examination Board. Test scores must be sent directly to the Office of Admission and Financial Aid from the College Entrance Examination Board.

## CLEP

Saint Vincent College awards Advanced Standing Credit to students who achieve scores on CLEP tests according to the schedule published by the Admission and Financial Aid Office. Students anticipating taking CLEP tests should check with the Office of Admission and Financial Aid to determine which tests are acceptable at the College. Test scores must be sent directly to the Saint Vincent College Admission and Financial Aid Office from the College Entrance Examination Board.

## Credit for Experiential Learning

The Dean of Studies arranges for evaluation by faculty members of learning that has been gained in non-academic settings. Information is available from the Dean of Studies.

## International Baccalaureate Programs

Saint Vincent College awards Advanced Standing Credit to students who participate in the International Baccalaureate Programs. Official test scores and transcripts must be sent to the Admission and Financial Aid Office for evaluation. Credit is awarded according to a standing policy in the college.

## Advanced Standing for Credits Earned at Other Colleges and Universities

Regulations used by Saint Vincent College regarding the acceptance of credits earned at other colleges and universities are as follows:

1. Credits earned by a student at another accredited institution will be accepted if the quality of the credits earned is a C- grade (1.70) or better, and if the number of credits in a given course does not exceed the number granted in a comparable course at Saint Vincent College. The College reserves the right to accept or reject courses for transfer credit on the basis of course objectives and content.
2. For graduation from Saint Vincent College a minimum of 34 credits, including 18 in the major and 9 in the Liberal Arts Concentration, must be earned at Saint Vincent College and the last 24 credits must be earned at Saint Vincent College. If a student elects a minor, 9 credits must be earned at Saint Vincent College.
3. A maximum of 90 credits earned at accredited four-year institutions will be accepted for transfer. A maximum of 62 credits earned at accredited two-year institutions will be accepted for transfer.
4. A student who has earned an Associate of Arts or an Associate of Science degree with a cumulative point average of 2.5 or above (4.0 scale) from an accredited two-year institution may have no more than 54 credits accepted that are of a character and nature suitable to a liberal arts curriculum. If an institution is not accredited, courses will be evaluated on an individual basis.
5. Transfer course grades are not used in the computation of the student's grade point average at Saint Vincent College.
6. Situations not adequately covered by these regulations are resolved by the Dean of Studies.

## Transfer Applicants

An applicant who is transferring from another post-secondary school should submit the following to the Office of Admission and Financial Aid:

1. A completed application form with the nonrefundable \$25.00 application fee or fee waiver form.
2. An official transcript sent directly to Saint Vincent College from the post-secondary schools previously attended.
3. A secondary school transcript sent directly to Saint Vincent College from the graduated secondary school.



The applicant's academic achievement and personal history at the post-secondary schools previously attended are of primary importance in the decision for admission. The secondary school record is requested as background information for academic counseling.

Personnel in the Office of Admission and Financial Aid are available to evaluate transcripts on request, even before application.

Faculty members are available for interviews, course advisement, and class scheduling through the Office of Admission and Financial Aid.

A personal interview is preferred by the Office of Admission and Financial Aid.

### **Early Admission**

A student with an exceptional record may be accepted to begin a degree program at Saint Vincent College after the completion of the junior year in high school. The student should be in the upper tenth of the class and have the assurance that the high school will grant a diploma after the successful completion of one year in college. An interview with the Assistant Vice President of Admission is required.

### **Pre-College Credit**

High school juniors and seniors are invited to take courses at Saint Vincent College for college credit. Such credits will be applied toward a degree at Saint Vincent College upon acceptance as a matriculated student or reported on an official transcript for transfer to other colleges and universities.

### **Non-Matriculated Students**

A person who wishes to pursue studies at Saint Vincent College without becoming a candidate for a bachelor's degree may take courses for credit as a Non-Matriculated student. A Non-Matriculated student is expected to conform to the general regulations of the College, and to fulfill the same requirements, and to meet the same scholarship standards for each course pursued as are demanded of candidates for a degree. A maximum of 30 credits will be accepted from a Non-Matriculated student toward a degree program.

### **Opportunity SVC/Act 101/Student Support Services (SSS) - TRiO Program Special Admission Policy**

The Opportunity SVC/Act 101/Student Support Services (SSS)-TRiO Program is an academic support system funded, in part, by the Commonwealth of Pennsylvania through Act 101 and by the U.S. Department of Education through the Student Support Services (SSS) – TRiO Program. Placement in the program is determined by the Admission Committee which evaluates the applicant's grades, test scores, and recommendations. Although each candidate is evaluated according to individual merits and potential, academic and financial eligibility requirements may be taken into consideration in accordance with state or federal guidelines. Program participants are required to complete a three-week, credit-bearing summer component. During the summer component, tutoring is provided by professional and peer tutors. In addition, a fall transitional semester is an added benefit of the program. The Opportunity staff provides ongoing academic support and counseling to the student throughout his or her college years.

### **Readmission**

A student who has withdrawn permanently or has been dismissed from Saint Vincent College must reapply according to the ordinary application procedures.

This student may be readmitted only with permission from the Dean of Studies and from the Dean of Students.

If this student has attended another post-secondary school, an official transcript must be sent directly to the Saint Vincent College Office of Admission and Financial Aid from the post-secondary schools attended.

A student whose status is temporary withdrawal may reenroll directly at the Registrar's Office. If the student does not reenroll within two semesters it will be necessary to apply for readmission.

### **Financial Aid**

Saint Vincent College makes every effort to provide financial assistance to students who have been admitted. See the Financial Aid section of this *Bulletin*.

# Financial Information

At Saint Vincent College the cost is kept at the lowest possible level consistent with a financially responsible operation. The payment of the College's bill is due before the beginning of classes each semester or session. The student must obtain a financial clearance sheet from the Business Office indicating that satisfactory arrangements have been made for payment of financial obligations to the College. Students who do not receive this financial clearance will not be officially enrolled at the College.

Students may not enroll for a successive semester until their accounts have been completely satisfied; and no diplomas, transcripts or records will be issued until all financial obligations have been settled. For students and parents desiring to pay education expenses in monthly installments and/or spreading the expenses over a number of years, payment plans are available through the College as well as agencies outside the College. These plans are optional and intended solely as a convenience. Persons desiring further information on these payment plans should contact the Office of Admission and Financial Aid, Saint Vincent College, Latrobe, Pennsylvania 15650-2690.

On checks given in payment of tuition and other fees which are returned by the bank because of insufficient funds, the issuer of the check will be charged a service charge of \$25.00 plus 3% of the amount of the check. All checks must be drawn on a U.S. bank. The College reserves the right to change any of the fees whenever increasing costs may require such change.

## Tuition and Fees for 2011-2012

### Students enrolled Fall 2011 and Spring 2012:

	Per Semester
Tuition per semester (12-19 credits)	\$13,755
Students taking more than 19 credits will be billed the \$13,175 rate plus \$860 per credit for credits exceeding 19.	
Students with less than 12 credits will be billed \$860 per credit.	
Regular Rooms, basic rate	
Bonaventure and Gerard	\$2,274
Saint Benedict Hall (single)	\$2,457
Saint Benedict Hall (double)	\$2,697
Wimmer (single)	\$2,457
Rooney (double)	\$2,898
Rooney (apartment)	\$3,445
Wimmer (double)	\$2,274
Aurelius (double)	\$2,778
Private Rooms, surcharge	
Bonaventure, Gerard and Wimmer Halls	\$1,600
Apartment Meal Plan	\$1,714
Board Plans 19 meal + \$50 flex	\$2,167
15 meal + \$100 flex	\$2,112
12 meal + \$125 flex	\$1,972
200 Block + \$100 flex	\$2,167
5 meal + \$50 flex	\$709
Student Government Fee	\$123
(charged to all students taking 12 or more credits)	

### Technology Fee

The technology fee partially covers the increased costs of academic computer support and multimedia instruction. Voicemail, telephones, and cable television are not included in this fee.

- \$175 a semester (for full-time students)
- \$70 a semester (for part-time students)
- \$150 bandwidth fee

	Per Semester
<b>Special Course and Lab Fees</b>	
Science Lab Fee, per course	\$87
Experimental Psychology and Lab (PY 341)	\$87
Biological Psychology (PY 331)	\$51
Psychological Assessment and Educational Testing (PY 381, 382)	\$31
Language Lab Fee, per course	\$41
Applied Music (MU 125) per credit	\$257
Applied Music (MU 225, MU 325, MU 425) per credit	\$180
Student Teaching Fee (ED 410)	\$257
Student Teaching Orientation Fee (ED 400)	\$123
Art Studio Courses, per course	\$87
(AR 130, 131, 135, 225, 230, 234, 236, 240, 325, 336, 338, 348, 404, 405)	
Art Lab Fee (AR 280)	\$41
Senior Art Exhibit (AR 405), per course	\$87
Junior Recital (MU 315)	\$61
Senior Recital (MU 415)	\$61
Teaching Observation Lab (ED 101)	\$53
Education Labs (ED 207, 307)	\$53
Photography (AR 212, 333)	\$154
<b>Audit Fees</b>	
Course Audit (per credit)	\$860
Course Audit for persons over 30 years of age up to 64 years of age is one-half of the regular course audit fee. For persons 65 years of age and over, course audit is free of charge. Registration fee for each reduced-rate course audit is \$5.00. Students are responsible for fees if associated with a course to cover the cost of materials.	
<b>Miscellaneous Fees</b>	
Health Service Fee (residents and full-time undergraduate students)	\$82
First-Year Orientation Fee (first semester only)	\$180
Application Fee	\$25
Laundry Fee	\$27
Reservation Deposits (these deposits are credited to the student's account but are not refundable)	
To place name on roster of students	\$100
Housing reservation (for resident students only)	\$100
Required of all new students, and for all returning full time matriculated students, these reservation fees must be paid on or before May 1.	
Late Registration	\$50
Adding/Dropping Classes after first day of semester (per add/drop form)	\$15
Graduation Fee	\$85
Late Graduation Fee	\$30
Fee for Certificate Programs Completion	\$15
Transcript	\$5
Fee for finalizing each incomplete "G" grade	\$35
Key Deposit (required of all resident students, per key)	\$5
Medical Plan Fee	Prevailing Fee
<b>Study Abroad Program</b>	
Enrollment on Roster	\$500
<b>Cooperative Education Internship</b>	
Non Credit Internship	\$82
Tuition (per credit)	\$860

Cooperative education or internship programs at times involve fees to be paid to the cooperating agency. In these cases, individual arrangements are worked out with the Dean of Studies.

### Assessing Experiential Learning Portfolio

Evaluation, Interview and Exams	\$180
Fee for Advanced Standing Credit Awards (other than AP or transfer), per credit	\$154
Parking and Vehicle Registration	\$70
Vacation Fee	

The dates for vacations are listed in this *Bulletin*.

Those who remain at the College during these times are charged at the rate of \$15.00 per day for room and board.

Books and ordinary school supplies may be obtained at the College Book Center. Purchases are made on a cash basis. Funds may be deposited with the Manager of the Book Center and may be withdrawn as needed.

### Fees for Part-time or Non-Matriculated Students

Initial Registration	\$25
Parking and Vehicle Registration (per year)	\$70
Books and Supplies estimated annual expense	\$500

### GRADUATE PROGRAM

Graduate Tuition	
McKenna School, per credit	\$542
Health Sciences, per credit	\$631
Education, per credit	\$525
Application Fee (applied to cost of processing application – non-refundable)	\$25
Initial Registration charged upon first enrollment at Saint Vincent College	\$25
Late Registration	\$50
Graduation Fee	\$85
Technology Fee	\$175
(\$70.00 for students carrying fewer than 9 credits)	

*N.B. Student Government Fee will not be charged to graduate students.*

### Refund Policy

The policy for refund of tuition and fees upon withdrawal from individual courses or from the College applies only to withdrawals processed on official College withdrawal forms. A 95 percent refund will be given in the Fall and Spring semesters within the first 15 days of the term. A 40 percent refund will be granted between days 16-30 of the term. On the 31st day of each term no tuition or fees will be granted. Note that refunds, if any, depend on the dates noted on official withdrawal forms. A student who feels that special circumstances warrant an exception from established policy may present an appeal to the Dean of Studies.

### Return of Financial Aid for Students Who Withdraw

For students who withdraw within the refund period, financial assistance from scholarships, loans, and/or grants will be returned to the source of aid in accordance with the provisions prescribed by the funding source.

### Repayment by Students Who Withdraw

A student who received federal or state funds to finance expenses other than Saint Vincent College direct charges and who ceases enrollment at Saint Vincent College after the first class day of a semester and before the last class day of a semester may be required to make repayment to federal, state and institutional funding sources, e.g., Federal PELL, Federal Perkins Loan, Federal SEOG, state grants, Saint Vincent College Institutional Aid or endowments. Withdrawal calculations will be done in accordance with federal policy.

## Financial Aid

The financial aid program at Saint Vincent College is designed to help students who would find it difficult or impossible to attend college without some financial assistance. The College offers a comprehensive program of financial aid in the form of scholarships, grants, loans, part-time employment, and deferred payment schedules and coordinates programs from the federal and state financial aid programs. Any of these forms of financial aid may be offered singly or in various combinations to a student.

The Financial Aid Office estimates the cost of attending Saint Vincent College by adding tuition, room, board and fees plus an estimate for books, supplies, transportation from home to school and personal expenses. Please see the explanation of costs under "Tuition and Fees" in this *Bulletin*. The amount of financial aid an applicant receives is based on the difference between the total costs and the amount the student and family are reasonably able to contribute toward costs as determined by the Free Application for Federal Student Aid (FAFSA).

The College expects that the families of applicants for financial aid will assist students to the greatest extent permitted by their resources and that the student will help by means of summer and college employment, accumulated savings, and loans. The College encourages students to seek grant aid from outside sources such as corporations and civic groups.

Saint Vincent College extends its range of financial aid programs by utilizing federal and state grants and loans and work-study opportunities. The College makes every effort to provide opportunities for employment which are both educationally valuable and financially rewarding.

### Application for Financial Aid

To apply for financial aid a student must file the Free Application for Federal Student Aid (FAFSA).

All applications should be filed at Saint Vincent College by May 1 of each year. Saint Vincent College should be a designated recipient of this information. Any applications received after this date will be processed on a funds-available basis only. A student who has not filed an application for financial aid will not be eligible to receive any financial aid, e.g., scholarships, grants, college work study employment, or loans.

### Financial Aid Questions

Questions concerning financial aid should be addressed to the Office of Admission and Financial Aid, Saint Vincent College, Latrobe, Pennsylvania 15650-2690; telephone (800) 782-5549.

### Scholarships and Grants

A student must apply for financial aid in order to be eligible to receive a scholarship or grant even if the scholarship or grant is merit based. Only full-time students, i.e., 12 or more credits per semester are eligible.

Saint Vincent College, commemorating its founders and wishing to perpetuate their dedication to the services of youth, awards funds to students of academic promise and good character who ordinarily demonstrate financial need.

### Academic Scholarships

Saint Vincent College annually awards academic scholarships to freshmen for excellence in academic achievement as evidenced from the candidate's high school record and the scores from the SAT I or ACT. A candidate for these awards must be a graduate of an accredited secondary school.

### Leadership Grants

Saint Vincent College annually awards grants to freshmen in recognition of leadership abilities as evidenced by leadership in student activities, such as student government, student newspaper, clubs and organizations, community affairs, etc.

### **Benedictine High School Student Grants**

Students who are graduates of Benedictine high schools are eligible for these grants. The student must submit a letter requesting consideration for the award by March 15. This letter must be cosigned by the student's guidance counselor.

### **Benedictine Pastors' Awards**

Students who are registered members of parishes staffed by Benedictine monks of Saint Vincent Archabbey are eligible for these awards. You must have been a member of a qualifying parish at least one year prior to your start at Saint Vincent College. You must submit a letter from your pastor verifying your membership. Annual re-application is not necessary.

### **Catholic High School Graduate Grants**

A grant is extended to graduates of Roman Catholic High Schools who enroll as full-time students in the fall semester immediately following their high school graduation. Renewal requires continuous full-time enrollment during the academic years following initial enrollment.

### **Governor's School Merit Grants**

Students who have completed one of the Pennsylvania Governor's Schools of Excellence programs are eligible for these grants. The student must submit a letter requesting consideration for the award by March 15.

### **International Student Grants**

Students who are not citizens of the United States and have demonstrated financial need are eligible for these grants. A Declaration of Finances form must be filed with the Office of Admission and Financial Aid no later than April 1.

### **Academic Scholarship for Upperclass Students**

The College awards scholarships to matriculated full-time upperclass students, as funds are available. These scholarships are awarded on the basis of academic achievement at Saint Vincent College, character, and financial need. Applications must be received in the Admission and Financial Aid Office by May 1.

### **Transfer Student Academic Scholarships and Grants**

Scholarships and grants are awarded to students who are transferring to Saint Vincent College from another institution of higher education. These are granted on the basis of academic achievement and/or financial need.

### **Eagle Scout/Gold Award/Carl A. Spaatz Award Merit Grants**

Students who have attained the rank of Eagle Scout from the Boy Scouts, the Gold Award from the Girl Scouts, or the Carl A. Spaatz Award from the Civil Air Patrol are eligible for these grants.

### **Grace and Herb Boyer Scholarships**

Academic candidates for this scholarship must have exceptional academic achievements in secondary school. Leadership candidates for this scholarship must have exceptional records of leadership in school and community.

### **Shirley and J. W. Connolly Scholarship**

Candidates for this scholarship must have strong academic records in secondary school and broad extracurricular involvement in school and community.

### **COMPETITIVE EXAMINATION**

#### **Wimmer Scholarship**

By competitive examination in general knowledge; a student must be nominated by the principal or school counselor.

### **Biology—Maximilian G. Duman, O.S.B. Scholarship**

By competitive examination in biology; for information write to the Office of Admission and Financial Aid.

### **Business Administration**

For more information write to the Office of Admission and Financial Aid.

### **Chemistry—Bertin L. Emling, O.S.B. Scholarship**

By competitive examination in chemistry; for information write to the Office of Admission and Financial Aid.

### **English Scholarship**

By competitive examination in English; for information write to the Office of Admission and Financial Aid.

### **History Scholarship**

By competitive examination in history; for information write to the Office of Admission and Financial Aid.

### **Physics—Roland L. Heid, O.S.B. Scholarship**

By competitive examination in physics; for information write to the Office of Admission and Financial Aid.

### **Computing and Information Science Scholarship**

By competitive examination in computer science; for information write to the Office of Admission and Financial Aid.

### **Mathematics Scholarship**

By competitive examination in mathematics; for information write to the Office of Admission and Financial Aid.

### **Music—Gabriel Burda Music Scholarship**

By competitive audition for intended music majors only; for information write to the Office of Admission and Financial Aid.

### **Political Science**

For information write to the Office of Admission and Financial Aid.

### **Theology**

By competitive examination in theology; for information write to the Office of Admission and Financial Aid.

### **The Alex G. McKenna Economics and Policy Scholarships**

Competitive four-year scholarships are awarded annually on the basis of an on-campus essay competition (addressing a topic of current popular interest in the area of business, finance, economics or political science), in addition to demonstrated academic achievement and leadership qualities. The competition is open to high school juniors and seniors. For information write to the Office of Admission and Financial Aid.

### **Saint Vincent College Institutional Grant (Need Based)**

Students who have financial need after they have taken the maximum Federal Stafford Loan may be awarded a Saint Vincent College Institutional Grant according to priorities set by the College.

### **Employee Grants**

Special grants or waivers are granted to the spouses and dependents of faculty members and other employees of Saint Vincent College.

### **College Graduates Grant**

A Saint Vincent College Grant equal to 1/2 tuition is available to students who hold a Bachelor of Arts or Science degree from any accredited college or university and who are enrolled at Saint Vincent College in classes for academic credit.

### **Religious Order Grant**

A Saint Vincent College Grant equal to 1/2 tuition is available to members of Catholic Religious Orders who are enrolled at Saint Vincent College in classes for academic credit.

### **High School Student Grant**

A Saint Vincent College Grant equal to 1/2 tuition is available to high school students who are enrolled in classes for academic credit at Saint Vincent College. A high school student may enroll at Saint Vincent College with approval of officials of the High School.

### **Federal Pell Grant**

The Grant is awarded by the Federal Government. To apply for a Federal Pell Grant, students should follow the steps outlined under the heading "Application for Financial Aid."

### **Federal Supplemental Educational Opportunity Grant**

This grant is a grant from the Federal Government awarded at the discretion of Saint Vincent College. To be eligible a student must be enrolled for a minimum of six (6) credits per semester at Saint Vincent College.

### **State-Sponsored Aid**

A number of states offer financial grants to students attending college. Most of these are based on a needs evaluation and the regulations differ in each state. Residents of the states of Connecticut, Maine, Vermont, Ohio, Delaware, Massachusetts, West Virginia and Rhode Island may be eligible to receive grants while attending Saint Vincent College. Students should check with their high school counselor or with the higher education agency in the state in which they reside.

Pennsylvania residents who are enrolled at least half time (6 credits per semester) in a degree program may be eligible for a state grant based on financial need. For further information students should contact the Pennsylvania Higher Education Agency, 1200 N. Seventh St., Harrisburg, Pennsylvania 17102. Phone toll-free: 1-800-692-7392; their high school guidance counselor or the Office of Admission and Financial Aid at Saint Vincent College.

### **Federal Stafford Student Loan**

This loan enables a student to borrow directly from a bank, credit union, savings and loan association, or other participating lender. The loan is guaranteed by a state or private nonprofit agency and insured by the Federal Government. To be eligible for a Federal Stafford Student Loan, a student must be enrolled for a minimum of 6 credits per semester at Saint Vincent College and must have applied for a Federal Pell Grant.

The maximums a student may borrow are: freshmen, \$5500 per year; sophomores, \$6500 per year; juniors and seniors, \$7500 per year. The interest will not be more than 9 percent.

The total amount a student may borrow for undergraduate study is \$32,500.

For information on this program, students should contact the higher education agency in their state or their lending institution.

### **Federal Perkins Loan**

This loan from the Federal government is awarded at the discretion of Saint Vincent College. To be eligible for a Federal PERKINS Loan a student must be enrolled for a minimum of 12 credits per semester at Saint Vincent College and must have applied for a Federal Pell Grant.

### **Veterans Benefits**

Students eligible for veterans benefits should check with their local Veterans Administration Office. The Office of Admission and Financial Aid at Saint Vincent College will offer any help it can. The veteran who is a resident of the state of Pennsylvania should

request information about criteria for eligibility for a state grant from the Pennsylvania Higher Education Assistance Agency, 1200 N. Seventh St., Harrisburg, Pennsylvania 17102.

### **National Guard Educational Assistance Program**

Students who are residents of Pennsylvania and have enlisted in the National Guard may be eligible for annual grants from the Department of Military Affairs. Applications are available from the student's National Guard unit of assignment, the Recruiting Officer or the National Guard at (717) 861-8530.

### **Office of Vocational Rehabilitation**

Students who have disabilities may receive educational benefits through the Office of Vocational Rehabilitation. To be eligible, students must satisfy the disability and financial requirements of the Office. For further information regarding this assistance, the student should contact the Office of Vocational Rehabilitation at the local State Employment Service office. A representative of the Office is available monthly at the Saint Vincent College Office of Admission and Financial Aid.

### **Employment Opportunities**

Student employment opportunities exist both on and off campus. Through the College Student Employment Program, students may work on campus in a variety of positions within academic or administrative offices. All on-campus positions are administered by the Office of Admission and Financial Aid. Off-campus employment is coordinated by the Career Center and consists of part-time, seasonal, or career-related positions (internships or cooperative education). The Federal Work Study Program may be used to compensate interns working off campus with federal, state, or non-profit agencies as well as students working on campus, depending upon student eligibility and financial resources.

### **Air Force Reserve Officer Training Corps Scholarships**

Air Force ROTC scholarships are available for students enrolled in the four year program offered by Saint Vincent in conjunction with the University of Pittsburgh. These scholarships pay for tuition, selected fees, required textbooks and provide a \$100 per month stipend. Interested high school students should apply for the four year program through their guidance counselor; Saint Vincent College students should contact the Professor of Aerospace Studies, Detachment 730, Air Force ROTC, Fifth and Bigelow Blvd., University of Pittsburgh, Pittsburgh, Pa. 15260. Opportunities for two, three and four year scholarships exist.

### **Deferred Payment Plans**

For students and parents desiring to pay educational expenses in partial installments, the College provides short-term and long-term monthly budget plans. For information about these plans, contact the Saint Vincent College Business Office.

### **Standards of Satisfactory Academic Progress for Financial Aid**

Financial Aid at Saint Vincent College is contingent upon academic performance as well as financial need. To be eligible for a Saint Vincent College grant, Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Federal Perkins Loan, Federal Stafford Student Loan, or for the Federal Work Study Program a student must meet specific minimal academic standards. These minimal academic standards are called "STANDARDS OF SATISFACTORY ACADEMIC PROGRESS FOR FINANCIAL AID."

"Standards of Satisfactory Academic Progress for Financial Aid" are defined in terms of the number of successfully completed credits and a minimum Grade Point Average (GPA). The "Standards of Satisfactory Academic Progress for Financial Aid" at Saint Vincent College appear below specifically in terms of the

number of years of participation in the respective programs.

Second Year: A student, in order to be eligible to receive aid at the beginning of the second academic year at Saint Vincent College, must have earned a minimum of 24 credits after enrolling at Saint Vincent College and must simultaneously have attained either a minimum cumulative GPA of 2.0 or a 2.0 GPA in the most recent academic term.

Third Year: A student, in order to be eligible to receive aid at the beginning of the third academic year at Saint Vincent College, must have earned a minimum of 54 credits after enrolling at Saint Vincent College and simultaneously have attained a minimum cumulative GPA of 2.0.

Fourth Year: A student, in order to be eligible to receive aid at the beginning of the fourth academic year at Saint Vincent College, must have earned a minimum of 87 credits after enrolling at Saint Vincent College and simultaneously have attained a minimum cumulative GPA of 2.0.

Fifth Year: Financial aid cannot be guaranteed under any of these programs for more than four years. Any grants after the fourth year will be dependent upon the availability of funds.

### **Annual Review**

A review of financial aid awards is made at the close of each academic year by the Committee on Scholarships and Financial Aid of Saint Vincent College. The termination of any financial aid awards is made by this Committee as a result of this process.

### **Termination of Financial Aid**

The Chairperson of the Committee on Scholarships and Financial Aid will instruct the Assistant Vice President of Admission and Financial Aid to give a written Notification of

Termination of financial aid to any student who has not attained the "Standards of Satisfactory Progress for Financial Aid" as described above. The Notification of Termination will include the procedure for a student to request an exemption from the "Standards." If a student chooses to request an exemption, the student will be required within 20 days of the Notification of Termination to submit a written appeal of this decision to the Dean of Studies. In this request, the student must present reasons why he or she should be exempted from the "Standards of Satisfactory Academic Progress." The Dean of Studies will ask the Committee on Scholarships and Student Aid to determine if there are sufficient grounds to exempt the particular student from these "Standards." The Dean of Studies will notify the student of the reply to the request for exemption.

### **Transfer Students**

Transfer students receiving financial aid must meet these same "Standards of Satisfactory Academic Progress for Financial Aid," e.g., after one year at Saint Vincent College a transfer student must have earned a minimum of 24 credits and must simultaneously have attained either a minimum cumulative GPA of 2.0 or 2.0 GPA in the most recent regular academic term.

### **Reinstatement**

A student whose financial aid has been terminated because the above "STANDARDS" were not met may apply for reconsideration for financial aid only after the student has corrected the deficiency in credits earned and has attained a minimum cumulative GPA of 2.0.



# Academic Program and Regulation

## Knowledge of Requirements

Although advisors will assist the student about matters such as course and program selection, the ultimate responsibility for knowledge of requirements, course prerequisites, and for verification of the accuracy of records maintained by the Registrar remains with the student. Consequently, students should be familiar with the contents of this *Bulletin*, and monitor their progress toward graduation.

## Core Curriculum

The faculty establishes a core curriculum with the intention of providing all students with a general education to serve as the context for more specialized studies. The Core Curriculum requirements are as follows:

History	6 credits
Philosophy	6 credits
English	9 credits
Theology	9 credits
Fine Arts	3 credits
Modern and Classical Languages	6 credits
Social Sciences	9 credits
Natural Sciences	8 credits
Mathematics	3/4 credits
First-Year Seminar*	
(In addition to a typical 3/4 credit course)	
Total	60/61 credits

\*Waived for transfer students who transferred 24 or more credits upon acceptance.

Descriptions of requirements in each respective area of the Core Curriculum are as follows:

### *I. Humanities (thirty-six credits)*

#### *A. History (six credits)*

Student must take three (3) credits from History courses numbered 100 to 124. The remaining three (3) credits must be completed at the 200 level. It is strongly recommended that the 100-level course be completed before students take the 200-level course. If six (6) credits are earned and transferred from another institution, the core is met.

#### *B. Philosophy (six credits)*

PL 101 1st Philosophy is required as the first course in philosophy and is a prerequisite for all other philosophy courses except PL 120 Logic. The remaining three (3) credits may be satisfied by taking any other course that the department offers numbered PL 120 or above.

#### *C. English (nine credits)*

EL 102 Language and Rhetoric is required in the first year. Placement examinations are administered to all freshmen to identify appropriate level of instruction. Six (6) additional credits are required, three (3) of which must be a literature course. The remaining three (3) credits may be satisfied by any other course the English Department offers. Engineering majors must complete EL 102 and three additional English credits to fulfill the English core. EL 099 does not fulfill the core requirement.

#### *D. Theology (nine credits)*

TH 119 First Theology is required as the first course in Theology and is taken in the first year. The remaining six (6) credit requirement will be fulfilled by two theology courses, one at the 200 level and one at the 300 level courses. Engineering majors must complete TH 119 and three additional theology credits to fulfill the theology core.

#### *E. Modern and Classical Languages (six credits)*

Six (6) credits of intermediate or advanced level courses in foreign language are required. The two courses must be in the same

language. Placement examinations are administered to all entering first-year and transfer students to identify the appropriate level of instruction.

## *Special Exceptions*

1) Students whose first language is not English, most typically international students, fulfill the language requirement by their demonstrated proficiency in English. They are not required to complete another language, but they must ask the Dean of Studies to formally communicate this information to the Registrar.

2) Students who place into the Intermediate II (204) level or advanced course may fulfill the requirements by successfully completing the course they place into and (a) completing a 3-4 credit course in another foreign language, (b) completing three (3) credits in an approved study abroad program, or (c) complete a three (3) credit course, which extends one's cultural knowledge. Students exercising option (c) must take a course related to the language used to satisfy the core requirement. (*The culture course is a specific requirement for the core in Modern & Classical Languages and cannot be used to satisfy other core, minor or major requirements. Consult the Chairperson of the Department of Modern & Classical Languages for the current list of approved courses for each language*). Students who wish to exercise one of the above options must have the approval of the Chairperson of the Modern & Classical Languages Department prior to registering for the course.

### *II. Fine Arts (three credits)*

Three credits of music (MU) or art (AR) at the one hundred level must be completed at Saint Vincent College.

### *III. Social Sciences (nine credits)*

Courses offered in Business Administration, Economics, Political Science, Psychology, Sociology/Anthropology, Criminology, Law and Society, and two courses from Education, ED 100 or ED 109 for education certification students or elementary instruction majors, fulfill the social science requirement. A maximum of six (6) credits from any one discipline is allowed to fulfill the core curriculum requirement. Six (6) credits of the nine (9) credit requirement must be completed by the end of the junior year.

### *IV. Mathematics (three credits)*

Any course offered by the Mathematics Department numbered MA 104 or higher satisfies the core curriculum requirement, and must be completed at Saint Vincent College. MA 099 does not fulfill the core requirement.

### *V. Natural Science (eight credits)*

The natural science core curriculum requirement can be satisfied by successfully completing one 100-level course with laboratory, four (4) credits, in natural sciences (NSCI) and one 200-level course with laboratory, four (4) credits, in the natural sciences (NSCI); successfully completing any two 100-level courses with laboratory, four (4) credits, each course from within any discipline of the natural sciences (Biology, Chemistry, Environmental Science, and Physics), four (4) credits; or successfully completing any combination of one 100-level course with laboratory, four (4) credits, within a discipline of the natural sciences and a natural sciences (NSCI) course with laboratory, four (4) credits.

### *VI. First-Year Seminar*

All students will take one course designated as First-Year Seminar which will also satisfy a Core Curriculum Requirement to include one additional meeting time per week and one additional credit awarded.

### *FS 179 First-Year Seminar Skills*

This course is required of all students who do not successfully complete First-Year Seminar. Through lecture presentations, in-class activities, out-of-class assignments, and appropriate tests, the course provides students with review and assessment of skills

identified as target skills for all First-Year Seminar courses taught in the previous semester. Three (3) credit. No pass/fail. Permission of/placement by First-Year Seminar Director required.

### **Core Substitutions**

In the 3/2 Engineering Program, special core substitutions are listed under the Mathematics Department listing.

Students pursuing certification in Early Childhood or Elementary Education and Elementary Instruction majors may satisfy their history core requirement by taking HI 106, Topics in U.S. History to 1865, and HI 107, Topics in U.S. History since 1865, rather than by taking one 100-level class and one 200-level class.

## **The Goals of the Saint Vincent College Core Curriculum**

Saint Vincent College students learn “first what is necessary, then what is useful, and finally what is beautiful and will contribute to their refinement” (Archabbot Boniface Wimmer, O.S.B.). The Core Curriculum provides all students with a broadly based education which provides a general body of knowledge in the humanities and fine arts, social sciences, natural sciences, and mathematics, an interdisciplinary view of that knowledge base, and the skills to increase that general body of knowledge throughout their lives.

Study of the various disciplines that comprise the Core Curriculum provides students with a body of knowledge which includes both content and skills, including the vocabularies and languages of the disciplines, the theoretical frameworks of the disciplines, the problem solving techniques of the disciplines, and the underlying assumptions and limitations of the disciplines. This body of knowledge provides a context for more specialized studies and prepares students for the many transitions they will experience in life. During their lifetimes, individuals will experience changes in their physical, emotional, intellectual, and spiritual lives. In addition, many students will change their careers several times in their lives. The Core Curriculum provides a firm foundation of knowledge to prepare for the future.

The Core Curriculum at Saint Vincent College is interdisciplinary; the body of knowledge in one discipline overlaps and interacts with those in other disciplines. Students learn that the answers to many problems require an interaction among disciplines. Constructing connections between disciplines enriches the student's body of knowledge, and develops independent learning skills.

Knowledge gained during formal education is not static and must continue to grow throughout students' lives if they are to adapt to change. To prepare students for change, the Core Curriculum also provides students with the ability to be independent learners. Students become active in continuing to develop their body of knowledge. In addition, the ability to learn has a value in itself, because learning opens the gate to the “service and comprehension of life itself” (Whitehead). Learning is the entrance to a richer and broader experience of life.

The faculty of Saint Vincent College place great value upon the Core Curriculum. In addition to the general goals that are described above, we also believe that the Core Curriculum promotes the goals that are described in the following sections.

### **To form habits of ordered inquiry, logical thinking, and critical analysis**

At its best, learning involves finding coherent answers to questions that are intelligently framed. Ordered inquiry has a deeper dimension which is not satisfied with merely holding that something is true, but also strives to show the evidence on which the truth claim is based and to know the process by which evi-

dence is gathered. Undergraduates in all disciplines ought to be able to ask fundamental and critical questions about the core disciplines: What kind of knowledge is involved in the core discipline? What assumptions underlie the core discipline? Are these assumptions evident, certain, plausible, or merely conventional and convenient? This kind of fundamental inquiry can transform students into independent, logical thinkers who can learn on their own and explore new ideas. Logical thinking and critical analysis are strengthened by practice in a variety of settings, courses and disciplines.

Students practiced in these habits can

- a) analyze the reasons leading to specific ideas;
- b) evaluate the views of others based on appropriate evidence;
- c) use directly collected data or data given to them to construct knowledge by organizing (synthesizing, sequencing, or interpreting) the new information with previous background; and
- d) critically review habitual assumptions in order to accommodate existing beliefs and assimilate new knowledge.

### **To develop skills in information literacy**

Accurate and well-chosen information is necessary for living an examined life, but the vast quantity and varying quality of sources can pose challenges to that search. Information literacy encompasses critical knowledge and skills that aid in the successful and ethical use of information in any discipline or career. Broad familiarity with and expertise in using both traditional and electronic information sources and strategies helps students to ask intelligent questions, develop insightful answers, and become independent and lifelong learners. Persons who are information literate have an appreciation of information of lasting value, and can become contributing members of academic and professional communities.

The information literate student can:

- a) determine the nature and extent of the information needed for inquiry;
- b) access needed information effectively, efficiently, and ethically; and
- c) evaluate information and its sources critically and incorporate selected information into his or her knowledge base and value system.

### **To develop effective communication skills**

Human communication occurs, either explicitly or implicitly, to persuade, inform, reveal, and entertain. Whether writing or speaking, an effective communicator places primary importance on the needs of the audience when presenting information. When reading or listening, that person receives the message without distorting it due to preconceptions or biases and can critically evaluate the content of the message, regardless of the source. Effective interpersonal communication also requires responsive listening: the ability to respond, clarify, affirm, and share meaning. Ideally, effective communication skills should be developed in both the person's native language and in one or more foreign languages.

Students who are effective communicators can

- a) share their experiences and ideas with others, through both speaking and by writing, in an organized and confident style;
- b) demonstrate understanding of what others have said or written by paraphrasing and thoughtfully responding;
- c) critically analyze both their own and others' communications in an honest and creative manner; and
- d) discern and appreciate different forms and styles of writing, and use them in their own writing.

### **To develop skills in reading, writing, and literature**

The study of composition should be as much a means of discovery as a means of expression; the study of literature is the exercise of consciousness and imagination in language. The acts

of perceiving and learning are grounded in knowing how to read and to write; the achievement of fluency in the creation and expression of thought ultimately leads to self-awareness and personal development. Novels, poems, plays, and other media are models that mark this process in history; engaging such works is critical for understanding of the culture and the self.

Students who are fluent in reading, writing, and literature can

- a) understand the importance of primary literary texts, interpreting and analyzing the meanings of words and images that make up those texts;
- b) understand the relationships between literature and other arts and fields of endeavor;
- c) incorporate different literary styles and utilize principles of good writing in their own written work; and
- d) develop a growing understanding of self, humanity, diverse cultures, the human condition, and the human spirit by making relationships between literature and life.

### **To foster historical awareness**

Societies, institutions, and ideas develop over time as a result of many forces (including, but not limited to, political, economic, scientific, philosophic, military, religious, and cultural). Awareness of these forces allows us to better understand why a particular institution or idea arose or fell at a particular time. A faithful reference to past events and the critical interpretation of those events can also deepen our awareness of freedom and the limitations on that freedom. This historical awareness is essential for any personal or institutional growth.

A person with historical awareness can

- a) identify the particular forces most relevant to the development of an idea or institution, and trace the interactions of those forces through inception, development, transformation and decline;
- b) relate historical forces to one's own growth and the development of various cultures; and
- c) understand a work of literature in relation to literary and cultural history.

### **To develop an understanding of philosophical thought**

The Benedictine character of the institution provides a context for the study of philosophy at Saint Vincent College. Both by historical fact and through the very nature of the Benedictine approach to spiritual understanding, the tools of philosophical thought are indispensable to a complete Catholic, Benedictine, liberal arts education. Each of us can develop deeper insights into our own personal lives and the cumulative history of humankind through the study of philosophical systems of thought. Philosophical approaches to knowledge demand logical thought and a critical evaluation of principles, and they encourage such things as receptivity to new ways of looking at issues, honest reflection upon our values, aesthetic appreciation, and a consideration of intellectual and moral ideals.

Philosophical literacy is demonstrated when a person can

- a) apply philosophical principles and tools in reflecting upon intellectual, moral, and social issues;
- b) identify and understand some of the specific philosophical systems of thought; and
- c) be receptive to a re-examination of values and moral ideals.

### **To foster an understanding of religious studies**

The educational philosophy of Saint Vincent College affirms that a liberal education cannot be complete without the study of religion. A fuller understanding of both civilizations and individuals requires a knowledge of the religious traditions that shape their developments. Humans grapple with issues of morality and value, as well as with ultimate existential questions of human origin and life's purpose, frequently turning to religious faith for guidance. Education in the Catholic Benedictine tradition emphasizes the

study of Judeo-Christian values, but it is also open to truth and beauty wherever they are found.

Competence in religious studies is demonstrated when one can

- a) understand the meaning of the Hebrew and Christian scriptures and the various methods necessary for further study;
- b) understand the relevance of the Judeo-Christian tradition to contemporary issues such as social justice, racism, and personal fulfillment; and
- c) understand the ecumenical Catholic approach, as articulated by the Second Vatican Council, to the true and holy as expressed in other religious traditions.

### **To promote understanding of the natural sciences**

Science contributes to our knowledge of the natural world through careful and creative application of systematic processes. An educated person should be familiar with the process by which scientific knowledge is obtained through objective observation, the formulation of questions, the testing and verification of hypotheses and the development of explanatory theories. An educated person also should be familiar with some of the major observations and theoretical models of science that guide scientific developments. Finally, one should understand the impact science has had on daily life and the human condition.

Scientific literacy is demonstrated when a person can:

- a) describe the nature of scientific knowledge, use the scientific method, and comprehend, present and critique scientific work;
- b) explain the most fundamental observations and models developed in the process of scientific inquiry;
- c) evaluate the impact science has had on the human condition.

### **To develop understanding of the social sciences**

As social beings, we should strive to understand the forces that operate to influence the activities of individuals, groups, and societies. The social sciences provide an avenue to greater appreciation of the political, economic, sociological, psychological, and cultural factors that govern our actions. As with the natural sciences, students should be familiar with some of the major observations and theoretical models of the social sciences, and they should be familiar with the methodologies used by social scientists. This knowledge can help us better understand our own actions as well as our interactions with, and dependence upon, others.

Understanding of the social sciences is demonstrated when students can

- a) recognize problems that can be addressed using the methods of the social sciences, as well as problems that cannot be so addressed;
- b) apply the facts, theories, and perspectives of the social sciences to better understand themselves, the society in which they live, and other societies; and
- c) identify some of the observations and theoretical models relevant to specific social sciences.

### **To develop mathematical skills and quantitative literacy**

Mathematics is a family of completely abstract languages, each of which aims at complete precision and rigorous thinking. It is a primary instrument by which scientific knowledge is discovered and exhibited. Because mathematics is a formal science of relations, its study may strengthen the capacity for logical thought, critical analysis, problem solving, and the precise use of natural languages. In its pure form, mathematics reflects the human mind's attempt to order and discover patterns in nature; in its applications, mathematics reflects the fact that much knowledge is inherently quantitative and can be reached only through methodologies that depend on it.

Mathematical skills and quantitative literacy are demonstrated when a person can

- a) understand at least one mathematical language beyond elementary arithmetic;
- b) effectively communicate and interpret quantitative information;
- c) understand the considerable utility of mathematics as a language and tool in a variety of disciplines; and
- d) accurately apply appropriate mathematical reasoning and skills to solve problems.

#### **To develop an appreciation of the fine arts**

In the spirit of the goals of our founder, Boniface Wimmer, who believed that it was important to teach not only what is necessary and useful, but also to teach about what is beautiful, we believe it is important for our students to be exposed to the fine arts, not only in the form of the many excellent cultural events available on campus, but also as an integrated part of their classroom learning. As it is important for students to know and understand the workings of the natural world, as well as the structure of society, it is also important for them to recognize and understand this aspect of human expression. Art is often an expression of spiritual, emotional, as well as political and social identities in many cultures, and so understanding the artistic productions of their own and other cultures can enable students to know the world better, and better to know themselves.

Students will develop a systematic understanding and appreciation in the arts, especially in the areas of music and the graphic and plastic arts; recognize the aesthetic, spiritual, and functional qualities of art, both in history and in contemporary life; understand both the commonalities and the unique artistic contributions of artists in their own cultural traditions and in the traditions of other cultures.

## **Graduation Requirements**

*A candidate for graduation must satisfy the following requirements:*

- Complete a minimum of 124 credits;
- Satisfy the requirements of the Core Curriculum;
- Fulfill the requirements for the major(s) as specified by the department(s);
- Achieve an overall grade point average of 2.0 as well as a grade point average of 2.0 in the major at Saint Vincent College;
- Satisfy the capstone requirement as specified by the major department(s);
- Complete final 24 credits at Saint Vincent College (except for students enrolled in identified cooperative programs), and
- Obtain financial clearance from the Vice President of Finance and Administration

#### **Graduation Application Procedures**

To apply for graduation, the degree-seeking student must complete and file an "Application for Graduation" form at the Office of the Registrar upon attaining senior status.

Approximately one month before the graduation date, the graduation candidate must process a "Certificate of Fulfillment of Graduation Requirements" card. (The card will be mailed to all graduation applicants and must be signed by the department chair of any major(s) or minor(s) the student wishes to graduate with, and then be given to the Business Office. The recommended deadline for completing and processing this card is two weeks before the end of the semester.

Students who have special permission to take a course away from Saint Vincent during their final semester, must make sure that the Office of the Registrar receives a final, official transcript from the other institution before the graduation date. Students in the 3/2 Engineering Program must have an official transcript reflecting the successful completion of at least three, full-time semesters (a minimum of 45 credits) in engineering from the cooperative school sent to the Office of the Registrar before the graduation date.

#### **Notes:**

Before registering for the final semester of classes, the graduation candidate should review course work with the advisor and/or department chair to ensure that all major(s) and minor(s) requirements will be met.

Normally only three credits from each area of the Core may be transferred to Saint Vincent. If students wish to discuss Core Curriculum requirements, they are welcome to review their progress with the Registrar.

Be aware that the policy of the Board of Directors of Saint Vincent College is that in order to participate in Commencement exercises, the candidate must have completed all requirements for graduation and be an actual graduate. No exceptions to this policy can be made.

Other questions concerning graduation requirements may be directed to the Registrar.

## **Majors and Minors**

Major requirements are specified by the departments in the section titled *Courses of Instruction*. Students have the option of taking a double major. In addition, students also have the option of taking a minor or minors. For successful completion of a minor, a grade point average of 2.0 in the minor is required. Additional information about requirements for minors is given under the departments in the section titled *Courses of Instruction*.

## **Special Programs**

#### **Academic Honor Societies**

The College sponsors chapters of national or international academic honor societies to recognize students' academic excellence. Membership in an academic honor society stimulates professional growth and provides practical and leadership experience to enhance one's academic pursuits. Currently the College sponsors two general academic honor societies: Alpha Lambda Delta recognizes excellence among students in their first year of study in higher education; Alpha Chi recognizes academic excellence among college juniors and seniors. In addition there are honor societies in the following disciplines: Economics (Omicron Delta Epsilon); History (Phi Alpha Theta); Psychology (Psi Chi); Education (Kappa Delta Pi); Business (Delta Mu Delta); English (Sigma Tau Delta); Communication (Lambda Pi Eta); International Foreign Language (Phi Sigma Iota); and Theology (Theta Alpha Kappa).

#### **Accelerated Podiatric Medicine**

See Pre-Health Profession section of this *Bulletin*.

#### **Accelerated Osteopathic Medicine**

See Pre-Health Profession section of this *Bulletin*.

#### **Army and Air Force Reserve Officer Training Corps**

Saint Vincent College students may participate in a military officer training program in either the U.S. Army or the U.S. Air Force through the University of Pittsburgh. In addition, the Army ROTC program is available through Indiana University of Pennsylvania. Transportation between Latrobe and Pittsburgh or Indiana, however, is not provided.

All credits of the Professional Officers Course or Advanced Military Science may be applied as electives at Saint Vincent, but no credit is granted for general military courses. Students deciding to enroll should contact the University of Pittsburgh or Indiana University of Pennsylvania for more information.

Interested students are encouraged to contact an Army ROTC representative at the University of Pittsburgh, 315 South Bellefield Avenue, Bellefield Hall, Room 409, Pittsburgh, PA 15260 (412) 624-6197, or an Army ROTC representative at Indiana

University of Pennsylvania, 1140 Maple Street, Indiana, PA 15705 (724) 357-2700, or an Air Force ROTC representative at the University of Pittsburgh, Detachment 730, 2925 Cathedral of Learning, 4200 Fifth Avenue, Pittsburgh, PA 15260-0001 (412) 624-6396

### **Certificate Programs**

The College offers undergraduate certificate programs in Bioinformatics, Biotechnology, Entrepreneurship, Addiction Specialist Training and Computing and Information Science. A Graduate Certificate program is available in Health Services Leadership. These programs meet the needs of people whose career situation would benefit from a structured training program in the area of certification. For successful completion of a certificate, a grade point average of 2.0 is required for the undergraduate certificate. A grade point average of 3.0 is required for the graduate certificate.

Specific course requirements are found under the particular department concerned. For further information, contact the Office of Admission and Financial Aid.

### **Continuing Education**

Men and women not necessarily pursuing a degree may enroll in credit courses for personal or professional advancement. They should complete a Continuing Education Application when registering. Persons thirty years of age or over may audit any course at half-price tuition, and persons 65 or older may audit credit courses tuition free. Registration fee for each reduced-rate course audit is five dollars.

For information contact the Office of the Coordinator of Graduate and Continuing Education.

### **Internship Program**

The Internship Program provides opportunities for students to supplement academic preparation with practical work experiences related to the student's major and career choice. Internship experiences help students acquire marketable, career related experience as they learn to apply theoretical knowledge in a work environment. General elective or required academic credits may be earned and applied to fulfill graduation requirements. Students may work full-time or part-time during the fall, spring, and/or summer months within business, industry, government, and non-profit agencies. Students may receive compensation that helps to defray the cost of educational expenses. Applications, program information, and related internship search materials are available at the Career Center.

### **Engineering**

*Courses of Instruction under Mathematics.*

### **Pre-College Program**

High school students may take courses in the regular college curriculum with approval of their high school guidance counselor and the Coordinator of Graduate & Continuing Education. A list of appropriate courses will be decided upon by the coordinator and the student's guidance counselor. Students must complete a Pre-College Application along with a letter signed by their high school guidance counselor to be eligible. Pre-College students will receive half-price tuition.

### **Independent Study**

A student who wishes to pursue a special project in an area not sufficiently covered by the regular courses may request a faculty member to direct and supervise independent work. If accepted by the faculty member for independent study, the student should register for an independent study course in the department. Credits are determined by the faculty member and the Dean of Studies. The Independent Study Program is restricted to

juniors and seniors. A course required for the major, a minor or the College Core Curriculum may not be taken as an independent study. Independent Study courses may not be taken during the summer. Exceptions may be made by the Dean of Studies.

### **Interdisciplinary Writing Program**

Based on the liberal approach to life and learning, the Interdisciplinary Writing Program unites the Saint Vincent College academic community in an effort to develop students' reading, thinking, and writing skills in every course of study. The program establishes clear, consistent principles of writing practice and technique across the curriculum and offers faculty an opportunity to maintain an active, interdepartmental conversation on writing pedagogy. Students encounter and adapt these writing principles and practices in multiple courses and thereby build a firm foundation of writing skills, develop flexibility in applying those skills, and establish an effective writing process. The program garners students' intellectual gifts and professional aptitudes and encourages students to build an individual writing practice that is broadly applicable to their academic, professional, and personal pursuits.

Students participate in this program by enrolling in "Writing Designated" (WD) courses. These courses fulfill the program's mission by instructing students to write effective papers in the sciences, social sciences, business fields, as well as in the humanities. In WD courses, trained faculty cultivate their students' ability to write powerful, professional documents by incorporating the Six Principles of Good Writing, the Three Stages of Good Practice, and building on the lessons learned in the Language and Rhetoric course. Typically, WD courses require students to respond to reading assignments, integrate ideas and information from various sources, complete sequenced assignments, and revise papers based upon peer reviews or instructor feedback.

### **Study Abroad**

Study abroad opportunities are accessible to all Saint Vincent students regardless of their academic major. Students can take classes in their major, earn credits for core, complete an internship or study a foreign language. Program length varies from a four-week summer program to a full academic year.

In addition to summer language programs at Fu Jen Catholic University in Taiwan and Universidad del Valle de Cuernavaca Language Center in Mexico, Saint Vincent works closely with students to identify study abroad programs suitable for its students. Students have studied in Australia, Austria, China, Costa Rica, Denmark, France, England, Germany, Greece, Italy, Ireland, Spain, and Taiwan.

Early planning is essential to ensure academic requirements are met. Information is available from the study abroad office.

### **Service Learning and Community Outreach**

Through the Office of Service Learning and Community Outreach, Saint Vincent College students have the opportunity to enroll in an array of courses that integrate service into the curriculum. Through academic course work and service opportunities, faculty and students build partnerships with local community organizations committed to serving the marginalized. Faculty challenge students to reflect, write, and discuss their experiences. In addition, professors use course content to enhance students' understanding of the service experiences. Service Learning courses provide students with transformative experiences that create a foundation of compassion, reflection and problem solving for future opportunities. Examples of participating departments include Computer Science, Fine Arts, Language, Theology, and Philosophy. Service based internships are also available through the Office of Service Learning and Community Outreach.

## East Asia Study Tour

Saint Vincent College students have the opportunity to participate in an East Asia Study Tour. The tour varies each year but usually includes China's capitol city of Beijing. Participants may travel to other historic cities like Xi'an and Guilin, or to the highly developed southern and coastal regions like Hong Kong and Shanghai. The tour may also include a side trip to Japan, Korea, or Vietnam. On the tour, students visit temples, museums, historic sites, and business districts to learn about life in East Asia. They also meet university students who help to serve as guides. Application for the tour takes place in the fall semester. Before departure, students participate in a series of orientation sessions to introduce them to the languages and social customs of China and the other countries on that year's itinerary. Participation includes the option of registering for a course-credit component. St. Vincent faculty members lead the tour.

## Summer Sessions

The College offers a variety of courses during its summer program. This includes three, six and seven-week sessions. Classes are held both during the day and in the evening. Campus residence is available. Information may be obtained by contacting the Registrar or Dean of Studies. Graduate and pre-college students should contact the Coordinator of Graduate Admissions and Continuing Education.

## Honors Program

In concert with the mission of the College and the goals of the core curriculum, the Honors Program at Saint Vincent College strives to bring together accomplished students who share a commitment to excellence and a love of learning and to provide these students with academic challenges and enriching experiences that nurture and enhance rigorous intellectual development.

## The Honors Experience

Faculty of the Honors Program design special core curriculum courses exclusively available to students in the Honors Program. By design, Honors courses challenge and reward students who seek engaging academic work and substantial intellectual development. Students in an Honors course tend to play a more active role in the learning process through, for example, discussions, presentations, and projects. The quality of assignments, not the quantity, distinguishes an Honors course. At the conclusion of every Honors course students submit a short reflective essay and a sample of their work, which is placed in their Honors portfolio.

The Honors seminar, the culminating experience in the Honors curriculum, challenges students to integrate the various disciplines they have studied to address a particular issue or theme. During the seminar each student and the Director of the Honors Program reviews their Honors portfolio. In addition to the Honors curriculum, the Honors Program sponsors on-campus colloquia, forums for discussion of current cultural or political events, opportunities for service, and enriching off-campus excursions including an annual extended trip within the U.S. or abroad during breaks. Honors students play an important role in the Saint Vincent Student Research Conference and are strongly encouraged to present their scholarly or creative work at regional and national professional conferences.

## The Honors Curriculum

Students seeking to graduate as Honors Scholars must take a minimum of five Honors classes plus the Honors Seminar. Students may remain in the Program if their GPA remains above 3.0 and they continue to participate in Honors classes and at least one major Honors Program event per year. Students may also apply to the Program in order to participate in selected courses.

Recommended schedules are outlined below. Students who enter the program as sophomores or juniors would need to increase the number of Honors electives.

## Typical Schedule for Honors Courses First-Year

Exploring Religious Meaning: Honors Section  
Language and Rhetoric: Honors Section  
Honors Course (optional)

## Sophomore & Junior Year

First Philosophy: Honors Section  
Two Honors Courses

## Junior or Senior Year

Honors Seminar  
Honors Course (optional)

## Formal Recognition of Honors

All Honors classes are noted individually on the transcript. Students who successfully complete the Honors Curriculum receive recognition at graduation and a special designation on the transcript as a College Scholar of the Honors Program. The Honors Program Committee will review the records of the Honors Program students based on published criteria of grades and participation in Honors events.

## Application Process

Entry to the Program will be based on the student's academic work and evidence of the student's motivation to pursue challenging course work. Students who are not accepted to the Program may reapply at a later date using additional materials.

## Entering First-Year Students

Entering first-year students are invited to apply to the Honors Program as an extension of their Application for Admission to the College by submitting the application materials listed below. The Honors Program Admission Committee will also review the high school transcript and the ACT or SAT scores that are part of the general application to the College.

## Students Currently Enrolled at Saint Vincent College

Students currently at Saint Vincent are invited to apply to the Program by submitting the application materials listed below. The Honors Program committee will obtain student transcripts for each applicant from the Registrar.

## Honors Program Application Materials (required of all applicants)

Student name must appear on each item.

- Two letters of recommendation (Honors Recommendation Form).
- A short essay (maximum 600 words) that explains why the student would like to be part of the Honors Program. The essay should focus on personal experience with and interest in:
  - exploring and discussing original works and commentary.
  - sharing a commitment to a vigorous intellectual life by investing a significant effort in research, writing and other forms of creative expression.
  - integrating cultural events and independent scholarly work.
- A sample of original, individual work, produced for a high school course, which represents a student's knowledge, ability, and creativity. This may consist of an original paper written for a class (minimum 800 words); a longer poem or series of poems, a story, a play, or video; an original science project, multimedia presentation, musical score, or any other type of original work. This list is not exhaustive but illustrates the variety of work a student might submit. Research papers or projects that primarily string together quoted sources and do not include substantial portions of original writing by the applicant are not appropriate. Work created as part of a collaborative project is also not appropriate.



## Deadline for Submission

*Incoming First-year Students:* March 1 or until the program is filled.

*Students Currently Enrolled at SVC:* Students currently enrolled at Saint Vincent College are invited to apply to the Honors Program anytime during the year. However, students must submit their application three weeks prior to registration if they wish to enroll in Honors courses the following semester.

# Regulations

## Registration

Registration information is announced by the Registrar's Office. Information concerning registration for courses at Saint Vincent College as well as cross-registration for courses at Seton Hill University is published so that students may plan course sequence and properly register for desired courses. Students will not receive credit for classes for which they are not properly registered. All students are expected to register for themselves.

***Academic registration is concluded for a student when the schedule has been approved by an advisor, registration has been processed via the Web or by filing the appropriate form in the Registrar's office and the financial clearance is obtained through the Business Office.*** Registration changes must be processed by noted deadlines. Non attendance of a course for which a student has registered does not constitute official withdrawal. Students may not attend a course for which they have not registered. A \$50.00 administrative fee is charged to continuing, full time students who register late.

## Credit Hours

All courses are recorded in terms of credits, or semester hours. A semester hour for lecture classes is defined as one lecture, recitation, or class period of 50 minutes duration per week for one semester. A semester hour for laboratories is defined as three (3) contact hours per week for one semester.

## System of Grading

Grades are recorded by letter using a plus ( + ), minus ( - ) system; grade points are used to compute averages.

Letter Grade	Grade Points (per credit hour)	Number Grade
A	4.00	93-100
A-	3.70	90-92
B+	3.30	87-89
B	3.00	83-86
B-	2.70	80-82
C+	2.30	77-79
C	2.00	73-76
C-	1.70	70-72
D+	1.30	67-69
D	1.00	60-66
F	0.00	0-59

## Grade Point Average

Records are evaluated through a grade point average. This average is obtained by dividing the total number of credits taken into the grade points earned.

## Other Grading Symbols

AP — Advanced Placement Award. Credit is given, but grade points are not.

CL — CLEP Examination. Credit is given, but grade points are not.

EX — Experiential Learning. Credit is given, but grade points are not.

G — Incomplete. An incomplete course must be completed within one month of the beginning of the following semester or the grade

becomes an F. Under extenuating circumstances, the Dean of Studies upon the request of the instructor may grant an extension of time up to the end of the following semester.

IP — Course In Progress. Grade not available yet. Must be completed within three semesters.

NR — Grade Not Received From Instructor.

P — Pass. The student passed the course with at least the equivalent of a "C-" (1.70 or 70-72) or higher. Credit is given, but grade points are not.

T — Transfer course. Credit is given for transfer work from another accredited institution, but grade points are not.

X — Audit. No credit or grade points are given for auditing a course.

W — Withdrawal. No credit given and no effect on grade point average.

WF — Withdrew Failing. No credit given, but is computed in grade point average.

Withdrawal from courses is official only if processed appropriately via the Web or in the Registrar's office. Deadlines on withdrawals are indicated on the academic calendar. Failure to withdraw from a course officially will result in the student receiving a failing grade in the course. Refunds are based on the date the withdrawal is processed.

## Class Standing

The number of credits a student has earned toward graduation determines class standing.

Freshmen	0-23 credits
Sophomores	24-53 credits
Juniors	54-86 credits
Seniors	87+ credits

## Withdrawal from College

Students who withdraw from the College are required to contact the Dean of Studies and complete an official withdrawal form and Exit Survey. This is especially important if the withdrawal is during the period when the student is entitled to a refund. Refunds are based on the date the withdrawal is processed.

## Add-Drop Fee

Add/Drops are free through the first day of classes. Beginning with the second day of classes a fifteen (\$15.00) fee per process will be charged. No fee will be charged for changes caused by the college administration.

## Pass-Fail Option

The pass-fail option is available to encourage the motivated student to engage in more challenging coursework without jeopardizing the overall grade point average. Students may elect one course each semester on a pass-fail basis. Pass-fail courses do not satisfy Core Curriculum, major or minor requirements. The course will carry credit toward graduation, but it will not be used in the computation of the student's grade point average, if a P is earned. An F is computed in the student's GPA. In order to earn a P, the student must earn the grade of C- or better (1.7 or 70-72). A grade of D+ or lower will be recorded as an F.

Students may elect to take a course on a pass-fail basis up to the date indicated on the academic calendar. Once the student has declared the pass-fail option, a change back to the letter grade is not permitted.

## Audit

Students may audit courses. An audit signifies that the student will not be asked to meet the course requirements such as written assignments or examinations, but that he or she has the privilege of class attendance and participation. No credits toward graduation can be earned for audited courses and no grade can be given. Tuition for an audited course is identical to the tuition for students below the age of 29. Course audit for persons over 30

years of age up to 64 years of age is one half of the regular tuition. For persons 65 years of age and over, course audit is free of charge. Registration for each reduced rate credit course is \$5.00. Student is responsible for any fees associated with a course to cover the cost of materials.

### Dean's List

A semester grade point average of 3.50 places the full-time matriculated student on the Dean's List. A minimum of 12 credits of completed courses is required during a semester in order for a student to be eligible for the Dean's List. Because averages will be computed before the period for removal of incompletes, students requesting incompletes waive their right to be named to the Dean's List for that semester.

### Absence from Class and Make-up Exams

Attendance is expected in all courses. Absences are strongly discouraged because they are detrimental to the successful completion of a course. Absences, as well as make-up exams, are handled at the discretion of the individual faculty member. Instructors may choose to consider attendance in assigning grades. For the attendance policy and penalties for absence or lateness in a particular course, consult the instructor.

### Excused Absences for Participation in Intercollegiate Sports and Other College Activities

The College officially sponsors the following intercollegiate sports: cross country, swimming, field hockey, football, volleyball, track and field, lacrosse, baseball, golf, basketball, soccer, and softball. Before deciding to participate in a sport which necessitates absence from class, the student should carefully weigh the consequences of absences—even though officially excused—upon academic performance. Commuter students should exercise good judgment about driving to campus for classes during inclement weather. If a student determines that travel conditions are hazardous, she/he should remain at home. However, the student must notify the instructor in advance of the scheduled class meeting. Absences from class for participation in events in these sports will be considered excused absences provided proper procedures are followed. Although an excused absence will not be counted by the professor as a class missed, it does not relieve the student from the responsibility of learning course material. An excused absence simply means that the absence will not be counted by the professor as a missed class cut. Furthermore, any absence prevents a student from participating fully in the "process" of a course.

If a student determines that participation in athletics seriously interferes with academic performance, the student would be well advised not to participate. Normally, a student should miss no more than four class sessions for intercollegiate competition. The student should rely heavily on the judgment of the professor and faculty advisor in cases where athletic participation appears to be jeopardizing academic progress. If a student's grade point average falls below 2.0, the student is prevented by College policy from participating in intercollegiate sports.

As soon as a student is placed on the official roster, the student will inform each professor regarding participation in an intercollegiate sport, and will provide a schedule of games which may conflict with the class schedule. The student will make provisions for make-up exams and the like in advance of the examination date so that the student is not penalized for the excused absence.

For each absence the student will present an official excuse signed by the coach for the particular game which necessitates the absence. The policy and procedures outlined here for official intercollegiate sports also apply at the discretion of the Dean of Studies to other activities in which students participate.

### Courses Taken Elsewhere (Transfer Courses)

Courses taken at other accredited institutions in which a grade of C- or better, a 1.70 grade point average, or a 70 number grade or above will be accepted by Saint Vincent College toward a student's graduation if the courses have prior approval of the Registrar. Because only one course in each field is required to complete the core, the Mathematics and Fine Arts requirements must be completed at Saint Vincent. Continuing students may transfer credit for no more than a total of five (5) courses with no more than one course applied to the requirement of a given core area. In addition to the approval of the Registrar, approval of the other appropriate persons as identified on the Transfer Course approval form is required.

### Change of Major or Minor

A student must file a change-of-major/minor form with the Registrar in order to change a major/minor. If a student changes majors/minors, including changing from an undeclared major, a C-, 1.70, or lower received in previous courses and not required by the new major/minor will not be used in the computation of the GPA if the student requests it. The student must request the change in computation on a form available from the Registrar. Credit for these courses cannot be claimed in the future including for graduation. Although these grades are not computed in the grade point average, they remain on the transcript.

### Repetition of Courses

A student may repeat a course in which a C-, 1.70 or lower has been earned. The last grade shall replace the first in computing the grade point average even if the second grade is lower. The previous grade received is not removed from the transcript. Only the credits earned in the repeated courses count toward graduation. If a student retakes a course in which a C or better was earned, the student will not be permitted to count the second grade or credit because they were not eligible to retake.

### Records Policy and Directory Information

The College makes available a statement informing students and parents of their rights under the "Family Educational Rights and Privacy Act of 1974" (the Buckley Amendment). The purpose of this act is to establish procedures which govern access to and release of student records kept by the College. Questions about the access to and release of student records should be directed to the Registrar and/or the Dean of Students. Copies of the Buckley Amendment together with the College statement are made available in the offices of the Registrar and the Dean of Students. Students have the right to file a complaint with the Department of Health, Education, and Welfare concerning failure of the College to comply with the Act.

Academic transcripts, grade reports and other correspondence concerned with the student's status at Saint Vincent are sent directly to the students. Therefore, the parts of the *Bulletin* and/or the *Student Handbook* entitled "Academic Warning System," "Academic Dismissal" and "Corrective Action" should be carefully noted by the students as well as parents and other persons financially responsible for the education of students. Students and other interested parties outlined in the Act as entitled to access to the students' records will be requested by the College to follow ordinary request procedures established by the offices involved. Access to or release of student records under circumstances other than those provided for in the Act will not be permitted by the College without a signed waiver of the student.

Because academic transcripts, grade reports and other correspondence concerning a student's status are forwarded directly to the student, it is strongly advised that parents or others financially responsible for the education of the student anticipate this

arrangement by working out a satisfactory agreement between themselves and the student relative to records and correspondence from Saint Vincent College.

A student's record maintained in the Registrar's Office will be kept intact for five (5) years after the student graduates, withdraws or is dismissed. At the end of the five years the files will be purged of everything with the exception of the academic transcript.

Each semester the Registrar's Office prepares a ***Student Directory***. The directory includes the name, major, year, home address, home telephone, campus address and telephone extension, and SVC post office box number of each student enrolled in the semester for which the directory is published.

According to the Family Educational Rights and Privacy Act of 1974, a student has the right to refuse disclosure of any or all of the above items in the directory. If a Saint Vincent College student wishes to exercise this right, this must be done by the end of the first week of each semester by filing a written statement in the Registrar's Office.

### **Grade Appeals**

The instructor has jurisdiction in determining grades; however, the student has the right to appeal a final grade that the student believes to be in error. The appeal process may involve the following:

1. The student confers with the instructor involved.
2. The student and instructor (preferably together) confer with the chairperson of the department.
3. The student and instructor (preferably together) confer with the Dean of the School to which the department is attached.
4. In rare cases, when the foregoing steps do not resolve the issue, the student may initiate a formal written appeal to the Dean of Studies. Normally, the Dean will forward such appeal to the appropriate committee for its review and recommendation. A formal appeal should not be entered upon lightly by a student, nor lightly, dismissed by an instructor. A formal written grade appeal may be made no later than the fourth week of the following semester.

### **Student Concerns Regarding Academic Matters**

In the event that a student has a concern about a particular course, the following procedures should be followed. First, the student should schedule an appointment with the professor to discuss the problem or concern. After this meeting, if the student believes that the concern has not been resolved, the next step is to meet with the faculty member's chairperson or dean. If after this meeting the matter remains unresolved the student should contact the Dean of Studies who will work with the student, faculty member and the chairperson or dean to resolve the matter.

### **Academic Honesty**

Saint Vincent College assumes that all students come for a serious purpose and expects them to be responsible individuals who demand of themselves high standards of honesty and personal conduct. Therefore, it is college policy to have as few rules and regulations as are consistent with efficient administration and general welfare.

Fundamental to the principle of independent learning and professional growth is the requirement of honesty and integrity in the performance of academic assignments, both in the classroom and outside, and in the conduct of personal life. Accordingly, Saint Vincent College holds its students to the highest standards of intellectual integrity and thus the attempt of any student to present as his or her own any work which he or she has not performed or to pass any examinations by improper means is regarded by the faculty as a most serious offense. In any case of academic dishonesty, the faculty member together with the Dean of Studies, who confers with the student, decide on the appropriate sanction. Depending on the seriousness of the offense, possible sanctions are failure for the assignment, failure for the course,

suspension or expulsion. If a student receives the sanction of a failure for the course during the withdrawal period and drops the course, a WF will be recorded on the transcript.

### **Satisfactory Progress**

The Academic Status Committee meets after each semester to review the status of students who have not achieved a grade point average of 2.0 or above. Among the criteria which the committee uses to evaluate a student's progress are the following: number of credits earned, progress within the major and the Core Curriculum, and evaluations of faculty members contained in progress reports. Special circumstances affecting the performance of an individual student are also considered. If the student is not making satisfactory progress, he or she is dismissed. A student may be readmitted to the college if acceptable remedial work is done.

### **Academic Warning System**

1. The College demands of every student an academic average of 2.0 at each semester grading period. If a student fails to attain this 2.0 average, or a cumulative average of 2.0, the Dean of Studies issues a letter of academic warning with a copy to the student's advisor, departmental chairperson, and parents. A student who has not achieved an academic average of 2.0 may not participate in formal extracurricular activities. Examples of formal extracurricular activities include the student newspaper, intercollegiate sports, student government, drama. Exceptions are possible. Requests for exceptions to the rule must be made in writing to the Dean of Studies.

2. In the case of unsatisfactory achievement (below 2.0) at midsemester of the freshman year, a student should consult his or her advisor.

### **Academic Dismissal**

1. A student may be dismissed by the College administration for failing to attain a cumulative average of 2.0 by the end of the fourth semester.

2. A student may be dismissed before the fourth semester if extraordinary academic circumstances warrant dismissal.

3. If a student's cumulative average falls below 2.0 in the junior or senior year, one warning letter is issued. If the required cumulative average is not attained at the end of the following semester, the student is subject to dismissal.

4. An academically dismissed student may be readmitted to the College if he or she does acceptable remedial work. Typically, a student is required to complete two semesters of work at another institution and earn a grade point average of 2.50. Once readmitted, the student must maintain the required cumulative average at each grading period. A second dismissal is final.

### **Standards of Satisfactory Academic Progress for Financial Aid**

To be eligible for financial aid, a student must meet specific minimal academic standards. See "Standards of Satisfactory Academic Progress for Financial Aid" in the Financial Aid section of this *Bulletin*.

### **Second Major**

A student may elect to graduate with two majors. In that event, the student must file a completed Declaration of Second Major Form in the Registrar's Office. The student must meet all requirements for each major, and must be certified for graduation by the appropriate chairperson. The student's transcript lists both majors. Upon graduation the student is awarded one degree, a BA or BS degree. Where a department offers major programs leading to either a BA or a BS degree, the student will earn the degree for which they meet the requirements.

## **Second Degree**

A student who wishes to attain a second undergraduate degree after receiving a baccalaureate degree from Saint Vincent College or another college must apply through the Office of Admission, and complete a program of study that includes:

- a minimum of thirty credits beyond those required of the prior degree;
- a major program in a different field from the initial degree; and
- the completion of the core curriculum requirements in effect at the time of admission as a candidate for a second degree. The student must achieve a 2.0 minimum grade point average in the credit hours earned toward the second bachelor's degree. Only credits taken at Saint Vincent may be counted toward a second bachelor's degree. After acceptance by the College and completion of degree requirements, a second degree is awarded to the student.

## **Minor After Graduation**

Graduates of Saint Vincent who wish to obtain a minor may do so by registering for courses through the Coordinator of Graduate Admissions and Continuing Education. When requirements are satisfied, the student completes the appropriate form available from the Office of the Registrar and obtains the signature of the chairperson of the department granting the minor. The transcript of the student is then updated.

## **Changes of Requirements**

Academic requirements in effect at the time a student enrolls in the college generally remain applicable to that student. However, the college maintains discretion to modify programs and to add or delete courses at any time. When such a change is made, work done toward the fulfillment of a requirement that was completed before the change was made will continue to be recognized. New courses or requirements may, however, be applied to the uncompleted portion of a student's program.

If a student is readmitted to the College, requirements for graduation are determined by the Bulletin in effect at the time of entry as a readmitted degree student.

## **Honors**

To graduate with honors (*cum laude*) a student must have a cumulative grade point average of 3.50 to 3.69; with high honors (*magna cum laude*), 3.70 to 3.89; with highest honors (*summa cum laude*), 3.90 to 4.00.

## **Transcript Request Policy**

### *Unofficial Transcripts*

1. Only currently enrolled students may receive a copy of their unofficial transcript. This may be done by making a request in person and presenting a validated identification card. No fee is involved, but the student must be financially cleared by the Business Office.

2. In compliance with "The Family Educational Rights and Privacy Act of 1974" officials of Saint Vincent College who have a legitimate educational interest in a student may have unofficial copies of a student's transcript for their use only; parents, or those who can prove financial responsibility for a student, may receive an unofficial copy for their use only; no one else may receive or view a student's transcript without a written waiver from that student.

3. All other requests must be for an official transcript.

### *Official Transcripts*

1. There is a fee of five dollars (\$5.00) for each official transcript. When a student graduates, he/she will receive one free official transcript marked "Issued to Student."

2. Due to legal restrictions "The Family Educational Rights and Privacy Act of 1974" requests for transcripts will not be taken over the telephone. The Office of the Registrar must have a signed, written request from the student (whether it is on the pre-printed form, available in the Office of the Registrar, or a student's letter) before a transcript can be sent to a third party. Students may fax their requests to (724) 805-2063. A transcript, however, cannot be faxed.

3. All official transcript requests require at least one business day to process.

4. Parents, or those who can prove financial responsibility for a student, may request an official copy for their use only.

5. The Business Office must approve each request for an official transcript before it can be sent. If the Business Office denies a request because monies are owed to the College, the request and fee (if one was paid in advance) will be returned to the student with a letter explaining why the request cannot be honored at that time.

6. If the student wishes to have an official transcript sent to himself/herself, it will be stamped "Issued to Student." If it is to go to another institution via the student, it will be placed in a sealed envelope and the seal must remain unbroken for the other institution to consider it official.

# Student Services and Activities

This section of the **Bulletin** describes student services and activities.

## Advising

The College, recognizing the value of the faculty-student relationship, considers the academic advising of students to be an important element of education. Each student is assigned a faculty advisor by name. Students must meet with their faculty advisor on a regular basis.

## Athletics

Physical activity is an essential aspect of a well-rounded college education. Saint Vincent College has intercollegiate teams in men's baseball, men's and women's soccer, men's and women's cross country, women's volleyball, men's and women's golf, men's and women's lacrosse, men's and women's basketball, women's softball, men's and women's tennis, men's football, men's track, women's swimming and women's field hockey. The college is a member of the National Collegiate Athletic Association and follows the rules of NCAA.

The intramural program provides a wide variety of sports to meet the needs, demands, and interests of Saint Vincent College students. An invitation is extended to all students, faculty and staff to take part in the program. Leagues and/or tournaments are operated in basketball, flag football, volleyball, softball, deck hockey and tennis. Some popular nontraditional sports are also offered such as Ultimate Frisbee, kick ball and dodge ball. Aerobics is a very popular part of the intramural program. Saint Vincent College is a member of the National Intramural-Recreational Sports Association (NIRSA) and has participated in regional flag football championships.

Facilities on campus are available for those interested in weight lifting, basketball, swimming, and physical conditioning. A soccer field, lacrosse field, tennis courts, baseball field, softball field and football field are utilized by the students for outdoor sports.

## Career Center

Whether a graduate, senior or just beginning your college career, the Career Center will guide you throughout your entire four-year experience. The Career Center offers assistance in resume and cover letter writing, career planning, job searching, internship programs, graduate school preparation, and interviewing techniques. A professional will also assist in the career exploration process by administering inventories that allow students to focus on their personality and interests and how they can use the information to focus on a major or career.

In addition to meeting one-on-one with Career Center counselors, students are encouraged to attend Career Center workshops. These workshops offer advice on various career-related topics presented by a Career Center professional, Saint Vincent College alumni, and local employers. We also suggest that students attend job fairs and other career-related events both on and off campus.

The Career Center maintains relationships with hundreds of employers and alumni. We offer College Central, a large database of employers used to post internship and full-time positions for students and alumni. Students can interview on campus with employer by registering with the system. We also have a Career Resource Center with nearly 200 publications located in the Career Center where students can check out books related to their career of interest.

## Clubs and Organizations

The College affords the opportunity for students to participate in a variety of extracurricular activities. Over 60 clubs and organizations are available encompassing students' broad curricular and co-curricular interests. In addition to clubs affiliated with each academic major, the Student Affairs Division supports clubs that complement a variety of student interests. A sampling of these clubs cover interests such as politics, fencing, theatre, health and fitness, skiing, and the outdoors. The College recognizes the diverse, changing interests of the students and provides support and assistance to students who choose to develop a club not currently organized on campus. Information about clubs and organizations may be obtained from the Office of Campus Life.

## Disability Support Services

Students with physical, learning or psychological disabilities who submit formal documentation from a professional evaluator may be eligible to receive reasonable academic accommodations. Disability support services within the office of Academic Affairs works closely with each student to assess individual needs and implement the appropriate accommodations. Qualified students with disabilities have an equal opportunity to fully participate in all aspects of the educational environment at Saint Vincent College. Confidentiality of student records is strictly maintained. Reasonable academic accommodations do not alter course requirements. Grievances against academic accommodations and disability support services should be made in writing within two weeks of the incident and submitted to the Dean of Studies. Saint Vincent College acts in compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990.

## Opportunity SVC/Act 101/Student Support Services (SSS)-TRiO Program

The Opportunity SVC / Act 101 / Student Support Services (SSS)-TRiO Program is an academic support system funded, in part, by the Commonwealth of Pennsylvania through Act 101 and by the U.S. Department of Education through the Student Support Services (SSS) – TRiO Program. The professional staff provides individual academic advising, helps students identify personal goals, and encourages them to achieve their highest potential. In addition, the staff is available to assist students with academic strategies, time management, and test-taking.

### • ND 178 Principles of Academic Success

Principles of Academic Success is designed to assist students in developing the academic skills necessary for success in college. Topics will include note taking, test preparation, and time management. The instructor, occasional guest lecturers and other support service personnel on campus will present information to the students. One credit.

### • Study Center

The Study Center is a convenient, quiet facility supervised by the Opportunity Program and reserved for student study and computer use. It is located on the 2nd Floor of Alfred Hall. The Study Center is open in the evenings before class days and on an extended schedule during finals. Peer tutors work in the Study Center at specified times.

### • Tutoring

Tutoring is provided by academic departments and the Opportunity Program. Information about tutoring availability can be obtained from Departmental Chairpersons, the Dean of Studies, the Opportunity Program staff, and the *Tutorial Bulletin*.

## **Campus Ministry**

In founding Saint Vincent College, Catholic Benedictine monks established an academic tradition in which religion plays a vital role. Students are encouraged to search for personal religious faith in the context of community life. The College attempts to guide and help students of all faiths in their search for authentic religious values. The staff of Campus Ministry is charged with the service of the Saint Vincent College community in promoting and encouraging religious life and values. The staff members are available for conversation and/or counsel at appointed hours and upon request. Faculty members of various religious traditions in the Religious Studies Department are also available for consultation and guidance. A variety of events such as lectures, discussions, retreats, and Gospel-oriented services to the needy through interaction with community agencies are sponsored by the campus ministers. Catholic religious services are conducted on a regular basis on campus. Students may also participate in the liturgical functions of the monastic community and Saint Vincent Parish. These services are held in the Basilica. Congregations of various faiths in the surrounding communities welcome students to their religious services.

## **Residence Life**

Housing on campus is available in six Residence Halls for approximately 1,283 students. All students must sign the Residence Hall Contract that is binding for one academic year. First-year students under the age of 21 and living more than 50-miles from Saint Vincent College must reside on campus.

Saint Benedict Hall serves as the center for the first year student population. Upperclass students are housed in double occupancy rooms in Bonaventure and Gerard Halls, single and double occupancy rooms in Wimmer Hall, apartments and two room suites housing four persons in Rooney Hall, and two room suites housing two persons in Aurelius Hall. Housing in most residence halls is single sex by floor. Students may be consolidated if they are living alone in a double occupancy room and do not wish to purchase the room as a single.

A student taking fewer than 12 credit hours per semester, a registered student not attending classes, or a non-matriculated student may not reside on campus. Exceptions to the residence rule may be made by the Director of Residence Life. Fifth year, Continuing Education, and part-time students are housed based on availability once all other students are housed. Additional information and housing policies are contained in the *Student Handbook*.

Within each residence hall, each floor, neighborhood, or living area is led by at least one student para-professional (Prefect). Prefects are selected on the basis of maturity, leadership qualities, and the ability to create community. The Prefect works to maintain order within the residence hall as well as plans, promotes, and fosters programs of interest to the residents. Each residence hall is supervised by a Residence Hall Director (RHD) and Assistant Residence Hall Director(s) (ARHD). These staff members are post-Baccalaureate adults who have experience in student life issues and student life management. The Residence Hall Director sets the tone for the residential building and is the chief operations officers of that area.

The Director of Residence Life is responsible for the overall operations and development of the residence halls and oversees the housing assignment process.

## **Student Accident and Sickness Insurance**

All students are encouraged to participate in a health insurance program that offers major medical insurance coverage. A variety of plans and providers are available for American-born and international students. The Student Affairs Division can provide a student with limited guidance and information relating to health insurance coverage. The College does not endorse any specific insurance policy and encourages students to determine their insurance needs in consultation with their insurance company and health care provider.

The College requires international students (with the exception of BEI and ISEP students) to have insurance coverage which includes repatriation and medical evacuation. Within the first week of the Fall semester, all international students must demonstrate that such coverage exists. If the student does not have insurance coverage or if the terms of the coverage do not include repatriation and medical evacuation, then the student must enroll in an insurance plan that covers such contingencies. Students may contact the Office of Multicultural Student Life for more information.

## **Student Associations**

Student clubs and committees on campus are coordinated through the Office of Campus Life, the Club Advisor, and the Student Government Association. Leadership ability and energy are made evident in the daily operation of these organizations' array of activities. These activities range from the academic to the social, encompassing hobbies, athletics, politics, society at large, as well as the Saint Vincent College community. Membership in College organizations is available to all Saint Vincent College students.

## **Wellness Center: Health and Counseling Services**

The Wellness Center, located on the first floor of the Carey Student Center, is a resource for both health and counseling issues. Counseling Service helps students get the most out of their college experience by providing support in dealing with the choices and challenges that are part of college life. Individual counseling, mental health screening programs, and educational workshops are available to all students. For students who require more comprehensive mental health services, the counseling staff will provide referrals to appropriate resources outside of the college. All counseling services are free and confidential.

In so far as possible, the College aims to maintain the health of the students. Saint Vincent operates a well-equipped, nurse-directed center, staffed by two registered nurses, under the supervision of three family practice physicians. The physicians offer on-campus visits twice a week. Over the counter and in-stock prescription medications are provided to the student at no additional charge.

The Wellness Center sponsors and promotes many wellness events that are both educational and fun. The Wellness Center espouses a holistic philosophy and attitude which fosters the importance of balance in the college experience. Office hours are available from 8:30 AM – 4:30 PM, Monday through Friday.



# Undergraduate Courses of Instruction

Saint Vincent College awards two baccalaureate degrees: the Bachelor of Arts (B.A.) and the Bachelor of Science (B.S.). The degree program consists of the major, the Core Curriculum, and electives. Recommended electives are at times indicated by the departments. Second majors and minors are optional. Requirements of the Core Curriculum are given in the section "Academic Program and Regulations."

Major and minor courses of study may be selected at Saint Vincent College from the following departments or programs:

## **Alex G. McKenna School of Business, Economics, and Government**

Business Administration

Accounting

Business Economics

Business Education Information Technology

Finance

International Business

Management

Marketing

Economics

Entrepreneurship

Operational Excellence

Politics

Public Administration

Public Policy Analysis

## **School of Social Sciences, Communication, and Education**

Anthropology

Communication

Criminology, Law and Society

Education

Elementary Instruction

Psychology

Sociology

## **School of Humanities and Fine Arts**

Arts Administration

Art Education

Art History

Art Studio

Chinese Language and Culture

English

French

German

Graphic Design

History

International Studies

Italian

Latin

Liberal Arts

Medieval Studies

Music

Music History

Music Performance

Philosophy

Public History

Spanish

Theology

## **Herbert W. Boyer School of Natural Sciences, Mathematics, and Computing**

Biochemistry

Bioinformatics

Biology

Biotechnology

Chemistry

Computing and Information Science

Environmental Chemistry

Environmental Science

Environmental Studies

Mathematics

Mathematics/Engineering (3-2)

Physics

Physics Education

Saint Vincent College courses that are numbered at the 100 level are considered "survey" courses. Typically first-year students register for these courses. Courses numbered 200 and above are considered upper-level courses.

A schedule is published at the beginning of each semester, indicating the instructor, time and place of meeting for the courses offered. Courses listed in the **Bulletin** may not be available every semester. The administration may cancel courses for which there is insufficient registration.

## **Change in Department Structure**

*The Alex G. McKenna School of Business, Economics, and Government* has been organized effective July 1, 2001. The following majors are included with the McKenna School: Accounting, Economics, Business Education, Environmental Affairs, Finance, International Business, Management, Marketing, Politics, and Public Policy.

Formed in 2004, the *School of Social Sciences, Communication, and Education* encompasses the Departments of Communication, Education, Psychology, and Sociology and Anthropology. The departments share in common a concern with how people develop and interact in a wide range of settings, as well as a commitment to the approaches common to the social sciences. Programs in the School share a commitment to active and experiential learning and to student research. Associated with the School are the Saint Vincent College Drug and Alcohol Prevention Projects and the Fred M. Rogers Center for Early Learning and Children's Media.

Formed in 2004, the *Herbert W. Boyer School of Natural Sciences, Mathematics, and Computing* houses the departments of Biology, Chemistry, Computing and Information Science, Mathematics, and Physics. In addition to the majors of these departments, the School offers majors in Biochemistry, Bioinformatics, and Environmental Science. Teacher certification may be obtained in Biology, Chemistry, Environmental Education, Mathematics, and Physics. Cooperative programs with other institutions of higher education enable students to pursue degrees in engineering, occupational therapy, pharmacy, physical therapy, and physician assistant.

*The School of Humanities and Fine Arts* was established, effective July 1, 2004. The School contains the following academic departments and programs: English, Fine Arts (Art and Music), History, Liberal Arts, Modern and Classical Languages, Philosophy, and Theology. The Saint Vincent Gallery and the College's Stage and Theatre programs are also part of the School of Humanities and Fine Arts.

# Bioinformatics

Michael Sierk, Director

Bruce Bethke; David Carlson, O.S.B.; Matthew Fisher;

Mandy Raab

Bioinformatics is the study of biology and medicine using the analytical tools of mathematics and computer science.

Technologies spawned by the Human Genome Project have produced an avalanche of biological and biomedical data in the last two decades, with more being generated all the time. In order to make sense of this data computational and statistical techniques are essential, in addition to a deep understanding of biology.

The goal of the B.S. degree is to train students deeply in both computer science and biology, along with some training in math and chemistry. This will prepare students for a variety of options including:

- entering the workforce in the healthcare, biotechnology, and pharmaceutical industries, or in research institutes affiliated with governments, universities, and hospitals
- graduate programs at the Masters or Doctoral level
- pre-professional training programs such as medical school or dental school.

This is a growing field with a wide range of career opportunities at all degree levels; demand is high for individuals with the combination of biological knowledge and computational skills.

Bioinformatics at Saint Vincent College provides students with a distinctive combination of analytical and scientific training coupled with a broad-based liberal arts education. This mixture is a natural fit at Saint Vincent, allowing students to experience interdisciplinary connections both among the sciences and in relation to the world around them. Opportunities for exploring individual interests within and across disciplines are encouraged, including summer internships and research experiences, and students are able to design and carry out their own bioinformatics project as a capstone experience.

## BS Bioinformatics

### Requirements for a Bachelor of Science degree in Bioinformatics

(See Core Curriculum requirements.)

#### Major Requirements (66 credits)

The student must complete the requirements listed in the following categories:

#### Computing and Information Science Requirements (18 credits)

CS 110	Computing and Information Science I	3
CS 111	Computing and Information Science II	3
CS 170	Discrete Structures I	3
CS 221	Data Structures	3
CS 350	Database Concepts and Information Structures	3
Choose one from the following courses:		
CS 205	Web Site Design and Programming	3
CS 255	Introduction to Artificial Intelligence	3
CS 270	Introduction to Numerical Computation	3
CS 305	Web Technologies	3
CS 310	Programming Languages	3

#### Mathematics Requirements (4 credits)

MA 111	Calculus I	4
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#### Biology Requirements (22 credits)

BL 150	General Biology I	3
BL 151	General Biology Laboratory I	1
BL 152	General Biology II	3
BL 153	General Biology Laboratory II	1

BL 208	Cell Biology	3
BL 209	Cell Biology Laboratory	1
BL 214	Molecular Genetics	3
BL 215	Molecular Genetics Laboratory	1
BL 260	Biostatistics	3

Choose one of the courses listed below. The associated lab is recommended but not required.

BL 212	Microbiology	3
BL 216	Biotechnology	3
BL 222	Developmental Biology	3
BL 224	Mammalian Physiology	3
BL 234	Evolution and Systematics	3
BL 250	Medical Microbiology	3
CH 251	Proteins and Metabolism	3
CH 252	Nucleic Acids and Membranes	3

#### Chemistry Requirements (12 credits)

CH 101	General Chemistry I	3
CH 102	General Chemistry II	3
CH 103	General Chemistry Laboratory I	1
CH 104	General Chemistry Laboratory II	1
CH 221	Organic Chemistry I	3
CH 223	Organic Chemistry I Laboratory	1

#### Bioinformatics Requirements (10 credits)

BIN 218	Bioinformatics, Genomics, and Proteomics	3
BIN 219	Biomedical Informatics	3
BIN 357	Bioinformatics Junior Seminar	1
BIN 358	Bioinformatics Senior Research	2
BIN 359	Bioinformatics Senior Seminar	1

*\*General Chemistry I & II (or General Biology I & II) with laboratory fulfill the Natural Science core requirement. Calculus I fulfills the Mathematics core requirement.*

*\*\*Students interested in applying for medical or dental school should take CH 222/224 Organic Chemistry II and laboratory.*

*\*\*\*Students interested in applying for PhD programs or medical school are encouraged to take CH 251 Proteins and Metabolism or CH 252 Nucleic Acids and Membranes. These courses require CH 221-224 as prerequisites.*

#### Typical First-Year Schedule

	Fall	Spring
General Biology I and II	3	3
General Biology Laboratory I and II	1	1
Computing and Information Science I and II	3	3
General Chemistry I and II	3	3
General Chemistry Laboratory I and II	1	1
Language & Rhetoric and		
First Theology (Core)	3	3
Total:	14	14

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## Course Descriptions

### **BIN 110 Genes, Cells, and Computers**

This course provides an introduction to the intersection of biology and computers that is reshaping the arenas of biology, biotechnology, and medicine. Topics covered include cellular structure and function, gene structure and function, genetics, molecular evolution, and quantitative and computational approaches to biology. In addition ethical and social issues presented by new technologies such as genetic engineering and personalized genomic sequencing will be discussed. No prior college-level biology or computing experience is assumed. Offered spring semester. Three credits.

### **BIN 111 Genes, Cells, and Computers Lab**

This course is the companion laboratory course to BIN 110. The labs will consist of both “wet lab” experiments and computational labs. In the wet labs students will carry out basic molecular biology techniques such as purifying their own DNA, PCR analysis, and molecular cloning, while in the computational labs they will use software to analyze DNA sequences. No prior college-level biology or computing experience is assumed. Must be taken concurrently with BIN 110. Offered spring semester. One credit.

### **BIN 218 Bioinformatics, Genomics, and Proteomics**

An introduction to various techniques used in bioinformatics, including the algorithms and statistical concepts upon which they are based. The focus is on comparison and analysis of DNA and protein sequences. Students will learn about the types of biological questions that can be addressed using computational methods, and develop a deeper understanding of the computational tools available to address these questions. This understanding will be demonstrated in an end-of-semester project. Topics covered will include pairwise sequence alignment, sequence database searching, multiple sequence alignment, genome analysis, protein structure analysis, and microarray analysis. Students majoring in any of the natural sciences, computing and information science, or mathematics are encouraged to take the course. Prerequisites: BL 150-154 (for Biology majors) or BIN 110/111 (for all others). Offered every other Fall semester (Fall 2011). Three credits.

### **BIN 219 Biomedical Informatics**

An introduction to a variety of data types, databases, and data structures used in bioinformatics. The focus is on relational databases and integration of diverse data types in a biomedical context. Students will learn how existing database tools, such as Microsoft Access, can be used in biomedical informatics using data from clinical trials as an example. Topics covered will include relational databases, data modeling, and integration of biological data. Also covered will be introductions to various biomedical assays (e.g. flow cytometry, enzyme-linked immunosorbent assays) and the types of data they produce. Students majoring in any of the natural sciences, computing and information science, or mathematics are welcome to take the course. Prerequisites: BL 150-154 (for Biology majors) or BIN 110/111 (for all others). Offered every other Fall semester (Fall 2012). Three credits.

### **BIN 333 Special Study**

The student will pursue a faculty directed course of study. Variable credit. May be repeated.

### **BIN 357 Bioinformatics Junior Seminar**

The capstone senior project is initiated in this course during the spring semester of the junior year. Under the supervision of a faculty member, the student will select a project, research the literature, and develop a formal plan for undertaking the project. The student will produce a written project proposal and give an oral presentation at the end of the semester. Spring semester. One credit.

### **BIN 358 Bioinformatics Senior Research**

Students conduct the body of their capstone senior research project in this course, typically during the fall of the senior year. Projects may be individual or a team project, and students may have co-advisors from different departments. Fall semester. Prerequisite: BIN 357. Two credits.

### **BIN 359 Bioinformatics Senior Seminar**

The capstone senior project is completed in this course during the spring semester of the senior year. The student will write a thesis and present the project orally at the end of the semester. Spring semester. Prerequisite: BIN 358. One credit.

### **BIN 550 Bioinformatics Internship**

Work experience program extending the learning experience beyond the college into the world of work, through internships, fieldwork, and cooperative programs. Students may or may not be paid depending on the site. May be repeated. Variable Credit.

# Biology

*Bruce D. Bethke, Chairperson*

*James G. Barnett; Albert Gahr, O.S.B.; James S. Kellam;*

*Jennifer L. Koehl; Olivia S. Long; Michael Rhodes;*

*Cynthia A. Walter*

The biology program lays a foundation for graduate study in biology, and for training in the professions and technologies based upon the biological sciences. It is the philosophy of the department that as undergraduates, students should be broadly trained; should be knowledgeable in an area of specialization; should understand the process by which scientists ask and pursue the answers to questions; and should be acquainted with ethical principles and issues as they relate to the field of biology.

Both the B.A. and B.S. degrees are awarded in biology. Bachelor of Science students must complete 36 credits in biology while Bachelor of Arts students must complete 33 credits. Students begin in the first-year with General Biology (BL 150-153) where cellular, organismal and population biology are introduced. Subsequently, they select one of these three sub-disciplines as an area of concentration. During the sophomore, junior and senior years, they complete Cell Biology, one advanced course with lab in each of the three areas of concentration, and an additional advanced course with lab in their chosen concentration. Additionally, during the last semester of the junior year and through the senior year, students plan and complete a senior research project under the supervision of individual faculty.

Students are also required to complete one year of General Chemistry, one year of Organic Chemistry, and one year of Physics. B.S. students must complete one year of Calculus while one semester of Calculus is required of students electing the B.A. degree. It is strongly recommended that B.A. students complete a second semester of Calculus, and that all students complete one semester of statistics before their senior year. Further, since questions of an ethical and moral nature often arise in biology and related fields, students are encouraged to include a bioethics course in their curriculum.

General Biology is a prerequisite for all advanced courses and, with the exception of General Biology, only courses above BL 200 may be applied towards the total biology credits required.

In individual circumstances and with permission of the chairperson, a course may be substituted for one of the required courses listed under the cellular, organismal, and population concentrations. Students should work closely with their advisors and are cautioned to give careful and serious consideration to the selection of courses because requirements and recommended courses may differ among professional and graduate schools.

## Biology Learning Objectives:

- To prepare students for a graduate study in biology, training in the health professions and employment based upon the biological sciences.
- To provide students with the skills and knowledge of mathematics, chemistry and physics necessary to form a broad foundation in science.
- To enable students to approach biological questions from the perspective of molecular, cellular, organismal and population biology.
- To enable students to develop and complete an experimentally-based undergraduate research project.
- To bring to consciousness the ethical and moral issues inherent in the field of biology and its technologies.
- To provide opportunities for students to learn the Catholic position on bioethical issues.

## Teacher Preparation

Additional Science Course Requirements for Certification in Biology (7-12): In addition to a major in biology, the certification candidate must satisfy the following special requirements:

ES 106	Physical Geology	3
ES 107	Physical Geology Laboratory	1

See Education Department guidelines to plan core classes and other courses required for certification.

## Requirements for a Bachelor of Arts Degree in Biology

(See Core Curriculum requirements.)

### Major Requirements (61 credits):

BL 150, 152	General Biology I and II	6
BL 151, 153	General Biology Laboratory I and II	2
BL 208	Cell Biology	3
BL 209	Cell Biology Laboratory	1
BL 301	Junior Research Seminar	2
BL 302	Research Project	2
BL 303	Research Thesis	1
CH 101, 102	General Chemistry I and II	6
CH 103, 104	General Chemistry Laboratory I and II	2
CH 221, 222	Organic Chemistry I and II	6
CH 223, 224	Organic Chemistry Laboratory I and II	2
PH 111, 112	General Physics I and II	6
PH 113, 114	General Physics Laboratory I and II	2
MA 109	Calculus I	4

Fulfill the requirements for one area of concentration:

### Cell and Molecular Biology Concentration:

BL 214	Molecular Genetics	3
BL 215	Molecular Genetics Laboratory	1
and		
BL 212	Microbiology	3
BL 213	Microbiology Laboratory	1
or		
BL 216	Biotechnology	3
BL 217	Biotechnology Laboratory	1
One course with laboratory from each of the organismal and population biology areas.		8

### Organismal Biology Concentration:

BL 220	Comparative Vertebrate Anatomy	3
BL 221	Comparative Vertebrate Anatomy Laboratory	1
or		
BL 222	Developmental Biology	3
BL 223	Developmental Biology Laboratory	1
or		
BL 228	Wildlife Biology	3
BL 229	Wildlife Biology Laboratory	1
and		
BL 224	Mammalian Physiology	3
BL 225	Mammalian Physiology Laboratory	1
One course with laboratory from each of the cellular and population areas.		8

### Population Biology Concentration:

BL 232	Ecology	3
BL 233	Ecology Laboratory	1
or		
BL 236	Biology of Environmental Disturbances	3
BL 237	Biology of Environmental Disturbances Laboratory	1
and		
BL 234	Evolution and Systematics	3
BL 235	Evolution and Systematics Laboratory	1
One course with laboratory from each of the cellular and organismal areas.		8

**Strongly Recommended:**

BL 260 Biostatistics	3
or	
PY 203 Statistics I	3
and	
TH 280 Catholic Bioethics	3
or	
PL 218 Bioethics	3

**Requirements for a Bachelor of Science Degree in Biology**

(See Core Curriculum requirements.)

**Major Requirements (68 credits):**

BL 150, 152	General Biology I and II	6
BL 151, 153	General Biology Laboratory I and II	2
BL 208	Cell Biology	3
BL 209	Cell Biology Laboratory	1
BL 301	Junior Research Seminar	2
BL 302	Research Project	2
BL 303	Research Thesis	1
CH 101, 102	General Chemistry I and II	6
CH 103, 104	General Chemistry Laboratory I and II	2
CH 221, 222	Organic Chemistry I and II	6
CH 223, 224	Organic Chemistry Laboratory I and II	2
PH 111, 112	General Physics I and II	6
PH 113, 114	General Physics Laboratory I and II	2
MA 109, 110	Calculus I and II	8
	Elective Course in Biology	3

(Any three credit, 200 level biology course, CH251, CH252, BIN218, or BIN219 qualifies as an elective course in biology)

Fulfill the requirements for one area of concentration:

**Cell and Molecular Biology Concentration:**

BL 214	Molecular Genetics	3
BL 215	Molecular Genetics Laboratory	1
and		
BL 212	Microbiology	3
BL 213	Microbiology Laboratory	1
or		
BL 216	Biotechnology	3
BL 217	Biotechnology Laboratory	1
One course with laboratory from each of the organismal and population biology areas.		8

**Organismal Biology Concentration:**

BL 220	Comparative Vertebrate Anatomy	3
BL 221	Comparative Vertebrate Anatomy Laboratory	1
or		
BL 222	Developmental Biology	3
BL 223	Developmental Biology Laboratory	1
or		
BL 228	Wildlife Biology	3
BL 229	Wildlife Biology Laboratory	1
and		
BL 224	Mammalian Physiology	3
BL 225	Mammalian Physiology Laboratory	1
One course with laboratory from each of the cellular and population areas.		8

**Population Biology Concentration:**

BL 232	Ecology	3
BL 233	Ecology Laboratory	1
or		
BL 236	Biology of Environmental Disturbances	3
BL 237	Biology of Environmental Disturbances Laboratory	1
and		
BL 234	Evolution and Systematics	3
BL 235	Evolution and Systematics Laboratory	1
One course with laboratory from each of the cellular and organismal areas.		8

**Strongly Recommended:**

BL 260 Biostatistics	3
or	
PY 203 Statistics I	3
and	
TH 280 Catholic Bioethics	3
or	
PL 218 Bioethics	3

**Requirements for Minor in Biology (26 credits)**

All students must complete the following courses:

BL 150, 152	General Biology I and II	6
BL 151, 153	General Biology Laboratory I and II	2
CH 101, 102	General Chemistry I and II	6
CH 103, 104	General Chemistry Laboratory I and II	2

Additionally, students must complete 10 credits from the courses listed below. Two lecture-laboratory course combinations, each combination from a different area of concentration, must be included. Students may complete the remaining credits in any concentration. BL 260 Biostatistics may also be used to satisfy the remaining credits.

**Cell and Molecular Biology Concentration:**

BL 208	Cell Biology	3
BL 209	Cell Laboratory	1
BL 212	Microbiology	3
BL 213	Microbiology Laboratory	1
BL 214	Molecular Genetics	3
BL 215	Molecular Genetics Laboratory	1
BL 216	Biotechnology	3
BL 217	Biotechnology Laboratory	1
BL 242	Histology	2
BL 243	Histology Laboratory	1
BL 248	Environmental Microbiology	3
BL 249	Environmental Microbiology Laboratory	1
BL 250	Medical Microbiology	3
BL 251	Medical Microbiology Lab	1
CH 251	Proteins and Metabolism	3
CH 253	Proteins and Metabolism Laboratory	1
CH 252	Nucleic Acids and Membranes	3
CH 254	Nucleic Acids and Membranes Laboratory	1
BIN 218	Bioinformatics, Genomics, and Proteomics	3
BIN 219	Biomedical Informatics	3

**Organismal Biology Concentration:**

BL 220	Comparative Vertebrate Anatomy	3
BL 221	Comparative Vertebrate Anatomy Laboratory	1
BL 222	Developmental Biology	3
BL 223	Developmental Biology Laboratory	1
BL 224	Mammalian Physiology	3
BL 225	Mammalian Physiology Laboratory	1
BL 228	Wildlife Biology	3
BL 229	Wildlife Biology Laboratory	1
BL 230	Ornithology	3



### Population Biology Concentration:

BL 232	Ecology	3
BL 233	Ecology Laboratory	1
BL 234	Evolution and Systematics	3
BL 235	Evolution and Systematics Laboratory	1
BL 236	Biology of Environmental Disturbances	3
BL 237	Biology of Environmental Disturbances Laboratory	1

### Typical First-Year Schedule

#### First Semester (14-15 credits):

BL 150	General Biology I	3
BL 151	General Biology Laboratory I	1
CH 101	General Chemistry I	3
CH 103	General Chemistry Laboratory I	1
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	
	Core course (History, Social Science, etc.)	
or	Calculus	3-4

All students must take one course designated as a First-Year Seminar to satisfy a Core Curriculum requirement.

#### Second Semester (17-18 credits):

BL 152	General Biology II	3
BL 153	General Biology Laboratory II	1
CH 102	General Chemistry II	3
CH 104	General Chemistry II Laboratory	1
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	
	Core course (History, Social Science, etc.)	3
	Core course or Calculus	3-4

## Course Descriptions

Note: BL 150-153 are prerequisites for all courses above the 100 level.

### COURSES INTENDED FOR NON-SCIENCE MAJORS

#### BL 100 Introduction to Biology

This course provides insight into the organization of living systems at the molecular, cellular, organismal and population levels. Emphasized are the structural and functional characteristics common to most organisms, organismal diversity, biological evolution, and interactions between organisms and their environment. The laboratory is designed to introduce the process of science and the characteristics of scientific knowledge. Students learn to formulate questions and hypotheses, design simple experiments, interpret results, draw conclusions and present their work in scientific formats. For non-science majors. No prerequisite. Four credits.

#### BL 104 Field Biology

This combined lecture/laboratory course is designed to introduce non-science majors to the study of living organisms through direct observations in streams, pastures, lakes and forests. We will follow examples of ancient and modern field biologists as we develop background knowledge and skills in natural history, field collection methods and modern analysis of field data. Be prepared to work outside during each class, wearing old shoes, hip boots, or a life vest. For non-science majors. No prerequisite. Four credits.

#### BL 112 Understanding Biotechnology

This integrated lecture-laboratory course is focused on the ways in which our understanding of biological systems is applied for practical purposes. The lecture portion addresses the basic biology

and theory behind topics such as genetic engineering of microbes, plants, and animals for agricultural, industrial, and medical purposes; cloning of genes, plants and animals; as well as, DNA analysis in forensic science and medicine. Special consideration is given to the ethical issues raised by the application of these technologies. The laboratory component is designed to reinforce the scientific method while providing hands-on experience with DNA technologies and forensics analyses. For non-science majors. No prerequisite. Four credits.

#### BL 113 All About Drugs

Almost all of us use drugs, whether over-the-counter drugs, prescription drugs, or recreational drugs. Drugs impact our lives, as well as the lives of our family and friends. In this course, the pharmacology of drugs, including their mechanisms of action, side effects, and therapeutic uses will be discussed. The abuse potential of recreational drugs, tolerance and addiction, and the ethical issues surrounding modern drug discovery also will be discussed. The laboratory component is designed to reinforce lecture concepts. For non-science majors. Four credits.

#### BL 114 Human Biology and Laboratory

This course is an overview of the human body's structure, its functionality, and the process of reproduction. We will give some attention to learning about common disease states and the efforts to treat them. Lastly, we will explore topics of specific interest to college students such as the importance of sleep, maintenance of immune function, and the body's ability to cope with stress. Case studies, class discussions, and student presentations will be integrated into lecture and lab periods in addition to experimental and observational study in the laboratory. For non-science majors. Four credits.

#### BL 116 Bacteria, Friends or Foes?

This course will include discussions, lectures, and laboratories to study the tiny creatures that surround us known as microorganisms, particularly bacteria and viruses. The course will study the two-sided relationship between microorganisms and man. Most people think of bacteria and viruses as harmful because they cause disease. On the other hand, these tiny entities have many positive roles in our society including advancing biotechnology, food and beverage production, and roles in the environment including degrading of materials and cycling of nutrients. These and other topics will be discussed. For non-science majors. No prerequisite. Four credits.

#### BL 117 Animal Behavior

This course will introduce students to the study of animal behavior. The course will provide an overview of the mechanisms that animals use to sense and interact with the environment and with each other. There will be extensive examination of the various behaviors that animals have evolved as means for survival in a challenging world. The course will discuss how these behaviors give insight into human behavior and psychology. Additionally, there will be a component of the course that involves the discussion of the sociobiology debate and the ethical issues that accompany the study of animal behavior. For non-science majors. Four credits.

#### BL 118 Killer Germs

This course will include discussions, lectures, and laboratories to study past, present, and potential future diseases caused by microorganisms. The course will focus on the bacterial microorganisms and viruses, how they cause disease, treatments, and their impact on society. Topics will include tuberculosis, HIV/AIDS, antibiotic-resistance, and other significant topics. For non-science majors. Four credits.



**BL 119 Conservation Biology**

The rate of global species extinctions today is comparable to that experienced in the Cretaceous when the dinosaurs fell from prominence. This course will examine the modern causes of extinction as well as the techniques in biology used to monitor and sometimes reverse declining populations of endangered animals and plants. Conservation biology is interdisciplinary and uses existing scientific theory to manage animal and plant populations. Thus, the course will feature discussions of ethics and public policy as well as more traditional biological topics such as genetics and ecological interactions. A significant portion of the course grade will be based on a comprehensive term paper and oral presentation. Laboratory sessions will include numerous computer simulations and occasional outdoor activities. For non-science majors. Four credits.

**COURSES INTENDED FOR SCIENCE MAJORS****BL 150, 152 General Biology I and II**

This year-long course is intended for science majors. The first semester addresses the biology of cells, and animal physiology, development, and taxonomy. The second semester continues with plant biology, classical and molecular genetics, and ecology and evolution. At the conclusion of the course, Biology majors select cell and molecular biology, organismal biology or population biology as an area of concentration for subsequent work. A passing grade in BL 150 is required for BL 152. Three credits each semester.

**BL 151, 153 General Biology I and II Laboratory**

This course introduces scientific method, statistics, laboratory techniques, and the use of instruments as students perform experiments that reinforce and expand upon ideas presented in BL 150 and 152. One credit each semester.

**BL 208 Cell Biology**

This course is an intensive examination of cell ultrastructure and function. Emphasis is placed on the role of specific organelles in cellular processes such as membrane structure, function, biogenesis and recycling; protein structure, assembly, modification and trafficking; energy transduction; intracellular transport; cellular locomotion; cell cycle control and programmed cell death; and, cell to cell communication. Techniques employed in the study of cellular components and processes, including microscopy, are integrated into the course content; as is the relationship of individual cells within the environment of an integrated multicellular organism. Prerequisites BL150-153. Three credits.

**BL 209 Cell Biology Laboratory**

The laboratory is designed to familiarize students with the general methods used to study the physical nature of cells and their inherent biochemical processes. Experimental techniques performed range from the measurements of cell growth rates to the differential purification and biochemical analysis of subcellular components. The use of fluorescence microscopy to localize specific proteins in situ, using digital image capture and analysis, will be profiled. Throughout the laboratory an emphasis will be placed on the use of digital technologies to facilitate quantitative analysis of biological processes. Prerequisites BL150-153. One credit.

**BL 260 Biostatistics**

This course deals centrally with quantitative and statistical methodology in the biological sciences. It includes experimental design and the conventions of generating, analyzing, interpreting and presenting biological data. Prerequisites: BL 150-153. Three credits.

**Cell and Molecular Biology**

A study of complex cellular processes and interactions through characterization of the structure and function of their molecular components.

**BL 212 Microbiology**

This course will introduce students to microbiology, the study of microorganisms with a focus on bacteria and viruses. The course will include discussions and lectures on the history of microbiology, microbial growth and metabolism, and microbial genetics. The impact of microorganisms in the environment, interactions with other organisms, and microbial diseases, treatments and the human immune response will be studied. Prerequisites BL150-153. Three credits.

**BL 213 Microbiology Laboratory**

Students will learn how to properly handle, grow, and identify microorganisms. Students will study microorganisms in the environment including biofilms, the effect of antibiotics on bacteria, identification of food contaminants, and various factors that contribute to changes in microbial growth. The lab will focus on bacteria. Prerequisites BL150-153. One credit.

**BL 214 Molecular Genetics**

This course focuses on the gene, both in the context of genome structure and organization, and the coordination of individual gene expression. Specific emphasis is placed on the interaction between DNA and protein in relation to the regulation of gene expression, DNA replication, and recombination; the critical role of chromatin structure in gene organization and expression; and the molecular events in transcription, translation, and mutation. Structure and function comparisons are made between prokaryotes and eukaryotes using the bacterium *Escherichia coli*, the simple eukaryote *Saccharomyces cerevisiae* (baker's yeast), and humans, as paradigm organisms. Special attention is given to the techniques employed in molecular genetic analysis, including recombinant DNA methodologies and the relationship between molecular genetics and the fields of bioinformatics and biotechnology. Prerequisites BL150-153. Three credits

**BL 215 Molecular Genetics Laboratory**

This course is a hands-on engagement of the foundational methodologies used to elucidate, manipulate and quantify gene anatomy and expression. The technologies employed for cloning vector design and construction, molecular cloning, gene transfer, nucleic acid isolation, hybridization analysis, DNA amplification, RT-PCR, DNA sequencing, and, genetic sequence and database analyses are explored theoretically and in practical application. Prerequisites BL150-153. One credit.

**BL 216 Biotechnology**

This course engages the rapidly developing field of biotechnology through careful dissection of the technologies and their applications. Topics including cell-based and cell-free food and beverage biotechnology, heterologous protein expression in prokaryotic and eukaryotic systems, the design and production of transgenic plants and animals, stem cell technologies, reproductive and therapeutic cloning strategies, somatic and germline gene therapy approaches, vaccine development, DNA forensics, bioremediation, biofuels, and high throughput screening are examined in detail with consideration given to both their potential and realized industrial, medical and environmental applications. Emphasis is placed on the technical considerations unique to each technology, although safety and ethical considerations will also be addressed. Offered in even-numbered years. Prerequisites BL150-153. Three credits

**BL217 Biotechnology Laboratory**

This course provides students with significant hands-on experience performing techniques critical to the biotechnology industry. Laboratory exercises involve, food biotechnology, biosensor construction, recombinant protein production and purification in both prokaryotic and eukaryotic systems, plant and animal cell culture, and gene transfer to cultured plant and animal cells. Must be concurrently enrolled in BL216 Biotechnology. Offered in even-numbered years. Prerequisites BL150-153. Three credits.

**Organismal Biology**

Study of the structural and physiological characteristics of tissues, organs and organ systems, and their relationships to the organism as a whole.

**BL 220 Comparative Vertebrate Anatomy**

This course endeavors to provide a comprehensive comparison of vertebrate structure and function in the major body systems. Animals being discussed range from fish to reptiles, to mammals. Human comparisons are also included with each body system. Prerequisites BL150-153. Three credits.

**BL 221 Comparative Vertebrate Anatomy Laboratory**

The first part of this course is the comparative analysis of vertebrate skeletal structure. Animals under study include sharks, fish, amphibians, reptiles, birds, and mammals. The second part of the course involves an intensive study of mammalian gross anatomy through dissection of a cat. Body systems to be studied include the muscular, digestive, urogenital, reproductive, circulatory, and nervous systems. Prerequisites BL150-153. One credit.

**BL 222 Developmental Biology**

This course provides a comprehensive study of both invertebrate and vertebrate embryology with a particular focus on important model organisms. The course will also provide an overview of plant developmental mechanisms. Areas of study include gametogenesis, fertilization, early embryological events and organogenesis. This course will focus on both classical embryological and modern molecular and genetic techniques. In addition, the course incorporates a component that discusses the bioethical issues surrounding important areas in developmental biology. Prerequisites BL150-153. Three credits.

**BL 223 Developmental Biology Laboratory**

This course provides students with hands-on experiences in both classical and molecular developmental biological techniques. The course consists of two distinct units. The first unit focuses on the preservation and developmental staging of invertebrate and vertebrate embryonic model organisms. The second part focuses on the theory and practice of using molecular techniques (RT-PCR, In-Situ Hybridization, etc.) to investigate gene expression patterning during normal and abnormal embryonic development. Must be concurrently enrolled in BL 222 Developmental Biology. Prerequisites: BL 150-153. One credit.

**BL 224 Mammalian Physiology**

Detailed study of organ system function with emphasis on humans. The systems studied include neuromuscular, cardiovascular, respiratory, renal, digestive and endocrine. Homeostasis, regulatory mechanisms and the functional relationships between systems are emphasized. Prerequisites BL150-153. Three credits.

**BL 225 Mammalian Physiology Laboratory**

Hypothesis-driven laboratory experiments designed to explore organ system function in mammals, including humans. Students work extensively with computers to acquire, process and present data. Prerequisites BL150-153. One credit.

**BL 228 Wildlife Biology**

This course combines elements of animal natural history, physiology, and behavior to survey how animals cope with short-term and seasonal changes in their environment. In particular, we will discuss the challenges animals face in maintaining homeostasis during periods of reproduction, migration, hibernation and torpor, resource scarcity, and heightened competition or predation risk. We will examine strategies used by a variety of vertebrate and invertebrate species. Prerequisites BL150-153. Three credits.

**BL229 Wildlife Biology Laboratory**

The objectives for lab and field activities in this course include instruction on animal capture techniques, and the study of animal resource use in relation to habitat and microclimate. Prerequisites BL150-153. One credit.

**Population Biology**

Organisms in their relationship to each other and their environment, both historically and presently, form the core of this approach.

**BL 232 Ecology**

This is a general course emphasizing physical-chemical-biological relationships. Evolutionary trends are considered. Topics include energy relations, biogeochemistry, population growth, and the structure and function of communities and ecosystems. Prerequisites BL150-153. Three credits.

**BL 233 Ecology Laboratory**

Lab and field experiences paralleling Ecology 232 are designed to teach specific techniques of research design, field sampling, and data analysis in terrestrial and freshwater ecosystems. Prerequisites BL150-153. One credit.

**BL 234 Evolution and Systematics**

The theory and evidence of the gradual evolution of organisms, and taxonomic relationships of animals and plants. Offered in odd-numbered years. Prerequisites BL150-153. Three credits.

**BL 235 Evolution and Systematics Laboratory**

Laboratory experiments, computer simulations, and field trips are designed to study concepts presented in BL 234. Offered in odd-numbered years. Prerequisites BL150-153. One credit.

**BL 236 Biology of Environmental Disturbances**

We will explore the biological aspects of many natural and human-caused disturbances by studying the cellular, physiological and ecological responses of organisms to disturbances such as treefalls, logging, pesticides, acid deposition and drought. The course will focus on ecological problems as well as solutions. Offered in even-numbered years. Prerequisites BL150-153. Three credits.

**BL 237 Biology of Environmental Disturbances Laboratory**

Laboratory experiments, computer simulations and field work will parallel the topics presented in lecture. Field work will provide data for case studies on disturbances in both terrestrial and freshwater ecosystems. Offered in even-numbered years. Prerequisites BL150-153. One credit.

## Senior Research Program

The Senior Research Program introduces students to all facets of developing and completing a research project. It begins with BL 301 where the student writes a research proposal. He/she is introduced to biological literature searches, critical reading of primary research articles, formulation of biologically significant questions, experimental design and long-range planning. The program continues in BL 302 where the student performs the proposed laboratory work. The student masters, adapts and applies laboratory techniques to the solution of specific biological problems. Additionally, the student experiences the excitement of success and the frustration of setbacks common to all research. The program concludes with BL 303 where the student critically analyzes the data, integrates it with the findings of others and presents the work in a written thesis format. Enrollment in the first phase of the program (BL 301) requires completion of General Biology and at least two upper level biology courses, with concurrent registration in a third. Students with a biology QPA less than 2.0 or with two or more grades below C in upper level biology lecture courses may not register for BL 301.

### BL 301 Junior Research Seminar

Design and plan a research project. Write a research proposal. Two credits.

### BL 302 Research Project

Perform the experimental phase of the research project. Prerequisite: BL 301. Two credits.

### BL 303 Research Thesis

Write the senior research thesis. Prerequisite: BL 302. One credit.

## Electives

### BL 230 Ornithology

For thousands of years people have marveled at the beauty, the diversity, and the abilities of birds, particularly their ability to fly. Feathers are unique to birds, and birds are also known for their migratory behavior, singing ability, and parental care. While this course will cover these topics in depth, we will also examine how the study of birds can generate new insights relating to issues affecting all animals, including the nature of intelligence, communication, evolution, and ecological interactions. Class periods will feature lecture, multimedia demonstrations, and discussion of scientific literature. There will be a significant number of field trips to observe, identify, and capture birds in their native habitats. Prerequisites BL150-153. Three credits.

### BL 242 Histology

A detailed study of the normal tissues of vertebrates from both a morphological and a functional viewpoint. Special emphasis is placed on the characteristics of human tissues. Students must take the laboratory concurrently. Prerequisites BL150-153. Two credits.

### BL 243 Histology Laboratory

Each student gets experience in the preparation of slides as well as identifying tissues under the microscope. Prerequisites BL150-153. One credit.

### BL 248 Environmental Microbiology

A study of a variety of microorganisms that exist in natural environments, including Antarctica, deep-sea hydrothermal vents, Hot Springs in Yellowstone Park, and sedimentary rock. The possibility of microbial life on the moon will be discussed. The involvement of microorganisms in the flow of energy and cycling of materials will be investigated. Special attention will be given to studying the effect of pollutants on natural microbial populations and the effect

of microbiota on environmental contaminants. The application of microbes in the area of bioremediation and bioaugmentation will be presented. May be used to complete a biology minor or counted as an elective for the biology major. Prerequisites BL150-153. Three credits.

### BL 249 Environmental Microbiology Laboratory

Laboratory exercises and field work will be used to introduce students to useful techniques for isolating and examining microorganisms from many different environments, including soil and aquatic environments, and plants and animals. The use of microbes in the area of bioremediation and bioaugmentation will be investigated. May be used to complete a biology minor or counted as an elective for the biology major. Prerequisites BL150-153. One credit.

### BL 250 Medical Microbiology

This course will introduce students to the study of pathogenic (disease causing) microorganisms with a focus on bacteria and viruses. The course will include discussions and lectures and focus on microbial diseases, treatments and prevention, and the human immune response to microorganisms. Prerequisites BL150-153. Three credits.

### BL 251 Medical Microbiology Lab

Students will learn how to properly handle, grow and identify microorganisms. Students will study the effect of antibiotics on bacteria; mutation rates and causes including genetic transfer; and the future of medical microbiology and its importance in the health care setting. The lab will focus on bacteria. Prerequisites BL150-153. One credit.

### BL 310 Teaching Biology

Primarily laboratory instruction which includes lecturing, laboratory preparations and assistance under the supervision of the faculty member in charge of the course. It is not substitute teaching and is intended to provide first-hand experience with the teaching process. Permission of instructor required. One credit.

### BL 333 Special Study

The student will pursue a faculty directed course of study. Permission of Chairperson required. Variable credit. May be repeated.

### BL 350 Independent Research Project

The student will pursue research distinct from the Senior Research Project. Does not fulfill major or minor credit requirements. Variable credit. May be repeated.

### BL 550 Biology Internship

Work experience program extending the learning experience beyond the college into the world of work. Students are employed in an area related to their academic endeavor. Academic credits are P/F and are awarded by individual departments according to the extent of the work experience. Students may or may not be paid depending on the site. The purpose of the program is to integrate academic studies and employment activities. Does not fulfill major or minor credit requirements. Variable credit. May be repeated.

# Biotechnology

Mandy Raab, Director

Bruce Bethke; Matthew Fisher; Michael Sierk

Over the past 20 years, the emerging field of biotechnology has fundamentally changed the world we live in. It has led to breakthrough medical discoveries, greater understanding of the building blocks of life, advances in evolutionary biology, environmental remediation, agriculture, industrial processes, biomaterials, and even artificial intelligence. It has also spawned intense controversy. Public policy debates, ethical and religious concerns, legal and financial scandals, and questions of research integrity have all been a part of the biotechnology revolution.

Today the U.S. biotechnology industry is valued at \$360 billion, and directly employs roughly 180,000 people. Additionally, many more jobs have been created in research, government, law, finance, and other areas directly supporting the industry. The need for people trained to work in biotechnology is increasing at rates above the national average<sup>1,2</sup>. People working in biotechnology are paid higher than average wages, making the field an attractive educational option for students. The opportunities for graduates with knowledge and skills in biotechnology are substantial.

At the core of a biotechnology curriculum is a strong foundation in biology, chemistry, mathematics, computer science, and laboratory expertise. It is the interconnection of these fields that creates opportunity. The Herbert W. Boyer School of Natural Sciences, Mathematics, and Computing is able to deliver an interdisciplinary curriculum while maintaining the intimacy of a small liberal arts college, allowing students to explore various interconnected subspecialties through one-on-one research experiences with faculty and industry.

Biotechnology, however, is more than just a discipline of science. It touches ethics, public policy, government, economics, business, education, and law. Saint Vincent College has a distinct advantage in educating and preparing students for careers in biotechnology that extend beyond the laboratory. With strong existing programs in these liberal arts areas, we are in a position to address the whole discipline of biotechnology.

## Certification in Biotechnology

May be completed as a post-Baccalaureate Certificate (usually in one year), or concurrently with a traditional major course of study (may require an additional semester to complete).

(See *Core Curriculum requirements*.)

(See *Major requirements*.)

## Certification Requirements

### Prerequisites:

BL 150	General Biology I	3
BL 152	General Biology II	3
BL 151	General Biology Laboratory I	1
BL 153	General Biology Laboratory II	1
BL 208	Cell Biology	3
BL 209	Cell Biology Laboratory	1
BL 214	Molecular Genetics	3
BL 215	Molecular Genetics Laboratory	1
CH 101	General Chemistry I	3
CH 102	General Chemistry II	3
CH 103	General Chemistry Laboratory I	1
CH 104	General Chemistry Laboratory II	1
CH 221	Organic Chemistry I	3
CH 222	Organic Chemistry II	3
CH 223	Organic Chemistry Laboratory I	1
CH 224	Organic Chemistry Laboratory II	1
MA 109	Calculus I	4

## Course Requirements (32 credits)

BIN 218	Bioinformatics, Genomics, and Proteomics	3
BL 216	Biotechnology	3
BL 217	Biotechnology Laboratory	1
BL 260	Biostatistics	3
CH 251	Proteins & Metabolism	3
CH 253	Proteins & Metabolism Laboratory	1
CH 252	Nucleic Acids and Membranes	3
CH 254	Nucleic Acids and Membranes Laboratory	1
PS 390	Environmental Law and Policy	3
PL 218	Bioethics	3
or		
TH 280	Catholic Bioethics	3

## 4 credits (course & laboratory) selected from:

BL 220	Comparative Vertebrate Anatomy	3
BL 221	Comparative Vertebrate Anatomy Laboratory	1
BL 222	Developmental Biology	3
BL 223	Developmental Biology Laboratory	1
BL 224	Mammalian Physiology	3
BL 225	Mammalian Physiology Laboratory	1

## 3 credits selected from:

BA 104	Introduction to Management	3
BA 230	Introduction to Entrepreneurship	3
PS 150	Government and Business	3
Internship/Research Experience & Portfolio Completion		1

The Certification in Biotechnology requires, in addition to coursework, an applied internship or research experience, either paid or unpaid (which can occur on or off campus, during the summer or during the school year), and the completion of an individualized portfolio.

The portfolio will be used to highlight a student's acquired and demonstrated skills in biotechnology laboratory techniques, as well as their broader understanding of the field from a regulatory, policy, business, ethical, legal, and societal perspective. It will also convey a student's communicative and presentation abilities.

At least 12 credits of the Certificate course requirements must be completed at Saint Vincent College.

## Minor in Biotechnology

To be completed concurrently with a traditional major course of study.

## Minor Requirements (21 Credits)

BIN 218	Bioinformatics, Genomics, and Proteomics	3
BL 214	Molecular Genetics*	3
BL 215	Molecular Genetics Laboratory	1
BL 216	Biotechnology*	3
BL 217	Biotechnology Laboratory	1
PS 390	Environmental Law and Policy	3
PL 218	Bioethics	3
or		
TH 280	Catholic Bioethics	3

## 3 credits selected from:

BA 104	Introduction to Management	3
BA 220	Principles of Marketing	3
BA 230	Introduction to Entrepreneurship	3
Internship/Research Experience/Cumulative Paper		1

\*These courses require the General Biology series (BL 150-153) as a prerequisite.

The minor in Biotechnology requires, in addition to coursework, an applied internship, research experience, or cumulative paper.

<sup>1</sup> *Biotechnology Industry Organization (BIO)*, 2009

<sup>2</sup> *Pharma Industry News*, 2007



# Business Administration

Gary Quinlivan, Dean, McKenna School

William J. Hisker, Program Chairperson

A. Mark Abramovic; Thomas W. Cline; Robert J. DePasquale; Dawn Edmiston; Charles Fazzi; Jeffrey Godwin; Thomas C. Holowaty; Peter Hutchinson; Myron Kirsch, O.S.B.; Richard Kunkle; Robert Markley; Nicholas Racculia; Karen M. Stilley

*Adjunct Faculty:* Scott Avolio; John C. Caverno; Bonaventure Curtis, O.S.B.; Kenneth Dupre; Ann M. Giacobbi; George S. Glenn; Benjamin Goodwin; Douglas Hagy; Jennifer Howard; Sacha A. Kathuria; William Kimbro; Michael Koff; Eva Kunkel; James Kunkel; John Malone; James E. McBride; Jennifer Miele; Richard L. Neish; Gabriel Pellathy, Jr.; Nathanael Polinski, O.S.B.; Joseph Polka; Stephen Thimons; Thurman Wingrove; Kevin R. Walling; Julia Wnek

*Professor Emeritus:* Richard B. Guskiewicz

*Executive in Residence:* Rodger Lewis

All six of The McKenna School's undergraduate business majors are accredited by the Accreditation Council for Business Schools and Programs (ACBSP). The specific programs accredited by ACBSP are: Accounting, Business/Information Technology, Finance, International Business, Management, and Marketing. ACBSP is one of the top two premier accrediting agencies for business schools worldwide. With a requirement for faculty professional development (i.e., publications and research) and courses primarily taught by PhDs, the ACBSP is the number one business accreditation program devoted to teaching excellence and service to students. Given the McKenna School's commitment to liberal arts and providing students with a well-rounded education, we believe that the ACBSP is the better match for our business program.

The Business Administration program of the McKenna School of Business, Economics, and Government is designed to provide a thorough academic and professional education in the study of business principles, practices, and systems. The McKenna School's business curriculum combines theoretical, quantitative, technical and case studies and simulations in order to understand business life and activity within a dynamic market economy. The program delineates the nature and functions of the firm and private enterprise and the relationship of business to society as a whole. It seeks to help students learn to apply analytical skills and sound judgment to managerial operations and to solve business problems. Accordingly, the curriculum integrates the scientific method with the functional areas of business, providing students with the methodological tools to describe, predict and explain the varied phenomena surrounding business problems.

The Business Administration program combined with the College's liberal arts curriculum helps students integrate professional goals with an educational foundation for life-long learning and the pursuit of a responsible and rewarding way of life. To further facilitate the development of the written communication skills needed in business settings, there is a writing component requirement in many of the business courses. To improve reasoning, judgment and decision making under uncertainty, students are exposed to data analytic methods and statistical software. Development of teamwork and oral presentation skills are also part of the curriculum.

The McKenna School encourages internships and other work experiences, which may be sought through the College's Career Center. The capstone experience for all business majors is achieved through the Business Policy and Strategy course. Basic civic knowledge, as well as economics, is part of the mission of the McKenna School: all business majors must take Principles of American Politics. In these ways and by working closely with its students, the goal of the Business major is to help prepare stu-

dents for successful professional careers or graduate studies in business and related fields.

The McKenna School offers the Bachelor of Science degree in Accounting, Business Economics, Business Education, Finance, International Business, Management, and Marketing. Dual majoring in business is possible, but you must complete a minimum of 21 non-overlapping credits from the first business major.

The McKenna School offers a 36-credit master's degree in management. See the relevant section of this Bulletin for a further examination of this graduate program.

## Student Portfolio Requirement

As a requirement to graduation, all McKenna School business majors are required to complete a student portfolio. The portfolio will be utilized by the student to construct resumes, to provide evidence of professional skills (including written, oral presentations, quantitative, and analytical skills) relevant to their major, and to serve as a platform for talking points during interviews. The portfolio is also used to assess the student's ethical development, writing ability, competency utilizing newer technologies applicable to business presentations and data analysis, and proficiency in business information systems.

The portfolio contains the following documents:

- 1) business ethics paper written in BA 104 Introduction to Management (First-year);
- 2) updated business ethics paper written in BA 305 Business Ethics (Junior second semester or Senior year);
- 3) a resume (completed during the first year and updated each year);
- 4) at least one experiential project(s) defined by major with a focus on business skill sets;
- 5) information systems analysis project;
- 6) evidence of an oral presentation from a 300 level or above business class;
- 7) term paper written in a 300 level or above business class;
- 8) optional: professional thesis

Unless noted below, all portfolio submissions must come from the portfolio grid (see McKenna School website). New opportunities for submission may be added to the grid overtime. The business ethics component of the portfolio, designed by Dr. William Hisker, is unique and was considered path breaking by our accrediting body, the Accreditation Council for Business Schools and Programs. Businesses want employees who have strong ethical values. The resume will be utilized in internship and job searches. The experiential and information systems analysis projects provide evidence that the student possesses strong writing skills, is comfortable with applications of advanced technologies relevant to his/her business discipline, and demonstrate a high level of understanding of the business discipline and tools utilized. An internship may be used to satisfy the experiential project requirement. Internships require a weekly log of the experience and a short synthesis paper evaluating the experience in light of the goals and objectives established on the Student/Faculty Agreement form completed as part of your application process. The synthesis paper must discuss how the student's internship experience utilized their relevant coursework. Students must register for internship credit (BA 550) with the Career Center and the registrar's office. Evidence of oral communication may be satisfied by oral presentations delivered in a class setting—200 level or above business class or in an approved (by your business advisor) on-campus setting or off-campus activity. The required term paper is in addition to the senior-level business ethics paper. The term paper provides evidence of writing competency and the ability to write effectively and persuasively within the business discipline. The requirements underlying the professional thesis option, written in conjunction with BA 500, will be defined by the supervising professor.

Students may add or replace documents throughout their four years, but the required documents must be in the portfolio at the time of graduation. More than one submission in each defined area is permitted. The reason or purpose of the written work must be clear from the work itself or a copy of the project assignment must be attached to the submission.

All submissions to the portfolio are electronic and are to be completed in a timely fashion, as designated above, and in full prior to graduation. Executive Assistant to the Dean, Eva Kunkel, will provide an overview of the electronic portfolio at the beginning of each academic year. Questions regarding the portfolio may be addressed to Mrs. Kunkel. A copy of the portfolio requirements may be obtained from the McKenna School website.

### Transfer Credit

The College reserves absolute discretion with regard to the transferability of work done at other institutions, and in unusual individual circumstances, waiving an academic requirement. When, in its discretion, and due to the individual circumstances involved, the College elects to make an exception in an individual case, such a waiver shall not be considered to establish a precedent applicable to any other individual. Business classes designated 300 level and above may not be transferred to SVC from community colleges. Transfer credits for BA 200 Intermediate Accounting I and BA 201 Intermediate Accounting II require a challenge exam.

## STUDENT GUIDE TO INTERNSHIP PROCEDURES AND REQUIREMENTS

All students are encouraged to take advantage of the opportunity to undertake an internship. The purpose of an internship is to allow you to gain hands-on experience in practical settings. This provides for the application of classroom knowledge and assists you in making career-related decisions.

It is understood that in such placements the student is in a professional setting and should adhere to the highest standards of professional and ethical conduct. This includes, but is not limited to, seeking and following the direction of the site supervisor, as well as the theoretical expectations of the professor.

A vital part of the internship experience includes finding a position. The student is encouraged and expected to find suitable placements and/or sites based on expressed interests, the availability and willingness of the site to supervise a student, and stated career goals. Personnel from the Career Center can assist students in their search for a suitable placement. The student's academic advisor, other McKenna School faculty, and the Dean are available for letters of recommendation and helpful suggestions, but securing the placement is the student's responsibility.

### Scheduling an Internship

Students should start thinking about internships during sophomore or junior year, or at least one full semester prior to beginning the internship. Students should consider the types of internships available, when and where the internship might be, etc. This allows time to explore options, prepare a resume, plan to arrange class or work schedules, etc. If a student does an internship during the summer, typically the student registers for credit the following fall semester.

### Credit Hours

Each student should meet with his/her academic advisor before you setting up an internship to determine the number of credits required in the program of study. The number of work hours required per credit may vary depending upon the nature of the work. However, as a general rule, 45 hours of work for a period of 15 weeks earns three (3) credits; three credits being a maximum per internship at each employer. There are a maximum of six (6) credits available for internships.

### Credit/Grade

A student should register for credit if he/she would like to have the internship appear on his/her transcript. In all cases, the student will receive credit for the internship, but never a grade. McKenna School policy is that internships are graded on a pass-fail basis — in no case are letter grades (i.e., A, B, ...) to be given for internships. To receive credit, the student must communicate all details of the internship with his/her advisor for approval before beginning the internship.

### Academic Requirements for Internships

These are the general academic suggestions for internships for credit, but the specifics are to be determined by the academic advisor:

- a weekly log of the experience
- a short synthesis paper evaluating the experience in light of the goals and objectives established on the Student/Faculty Agreement form completed as part of the application process.
- a more in-depth paper, including evaluating the experience with relevant coursework.

*Completed materials **must** be submitted a minimum of two weeks prior to the end of the term in which a student is registered for credit to assure the credits will be granted. For summer internships, it is **strongly recommended** that the student turn in his/her materials soon after completing the internship while the experience is fresh in his/her mind.*

### Weekly Log

The weekly log is a detailed account of weekly activities during the internship. The log should contain a description of what was done, seen, and learned. A student should also note reflections on the meaning of the experience: what you are thinking about the experience, how it is affecting you, etc. To obtain the most value from the internship experience, be sure to write in the log every few days worked. Trying to construct a log at the end of the internship is less meaningful for the student and does not produce a log that is rich in reflection.

The log is simply a notebook with legibly handwritten entries. The log will be returned to the student after the advisor determines if the student has sufficiently reflected upon the experience.

### Synthesis Paper

The synthesis paper serves as the final statement of the internship experience and consists of two sections:

*Description of the placement:* The first section details the particulars of the placement site. It tells about the agency, business, or site, what the functions of the organization are, who the clients or customers are, how the facility is staffed, and other related questions. Also use this section to describe how a student chose this particular organization and the position, department, or function that the student did during the internship.

*Summary reflection:* The second section of the paper is the most important and should be emphasized during the writing process. The purpose of this section is to describe what was learned and the effect of the experience on current studies and future plans. This section should also be used to evaluate the goals and objectives from the original student/faculty agreement form. Did the internship experience provide the student with insights about his/her major and incorporate relevant coursework?

### Learning Objectives

#### Accounting

- Prepare students for entry-level positions in public accounting, industry, government, or other accounting-related positions;
- Prepare interested students for graduate study in business;
- Prepare students for further study leading to professional certification as a certified public accountant (CPA), certified management accountant (CMA), and other professional certifications.

## Finance

- Provides students with strong finance fundamentals but allows them to explore, through its tracks (i.e., Corporate Finance, Investment Management and Computational Finance), a wide breadth of career possibilities;
- Graduates will be well-suited to begin careers at investment-specific firms or finance departments of any business. In addition, students may pursue continued education through Master's or PhD programs;
- Quantitative analysis underscored by a thorough understanding of the "why" and "how" questions in finance;
- Its theoretical roots by deriving equations and reading original works of great finance academics;
- Enable students to apply theoretical models and knowledge in real life settings through case analysis, security selection games and senior level portfolio projects.

## Management

- Prepare students for entry level management positions in for-profit, not-for-profit and public agencies;
- Provide the business foundation for education students seeking certification in business education;
- Prepare students for further study in graduate programs such as the Masters in Business Administration (MBA), Masters in Public Administration (MPA) and other Public Policy Programs that demand substantial management undergraduate work;
- Prepare students for graduate programs leading to doctoral level study for students wishing to pursue a career in teaching or research in business management or Public Administration.

## Marketing

- Provide students with exposure to both theoretical and applied marketing problems and expose them to the role of the marketing management in a variety of contexts-consumer, industrial, financial, service, profit and non-profit;
- Prepare students for entry level positions in professional sales, marketing research, distribution and purchasing, advertising and promotion, retail and product management;
- Prepare students for entry into top-40 MBA Programs;
- Prepare students for doctoral studies in marketing or social psychology.

## Requirements for a Bachelor of Science Degree in Business Administration

Business core courses—required for all Business majors (43 credits):\*

BA 100	Financial Accounting I	3
BA 104	Introduction to Management	3
BA 220	Principles of Marketing (sophomore year)	3
BA 265	Management Information Systems (sophomore year)	3
BA 305	Business Ethics	3
BA 320	Corporate Finance I (sophomore year)	3
BA 340	Business Law	3
BA 350	Statistics I (sophomore year)	3
BA 351	Statistics II (sophomore year)	3
or		
EC 360	Econometrics	3
BA 495	Business Policy and Strategy	3
EC 101	Principles of Microeconomics	3
EC 102	Principles of Macroeconomics	3
PS 100	Principles of American Politics	3
MA 109/111	Calculus I (first year)	4

\*Business Education Information Technology (BEIT) majors are exempt from BA 351 and may take MA 208 in place of BA 350. Also, for all business majors, the college's social science and mathematics core are satisfied by the business core.

Typical Schedule for First-Year:		Fall		Spring
BA 100	Financial Accounting I	3		
BA 104	Introduction to Management	3	or	3
BA 101	Financial Accounting II (Accounting and Finance majors)			3
BA 150	Managerial Accounting (BEIT, Management, Marketing, and International Business majors)			3
Elementary Functions and/or Calculus I (MA 109 or MA 111)		3		4
TH 119	First Theology	3	or	3
EL 102	Language and Rhetoric	3	or	3
EC 101-102	Principles of Microeconomics and Macroeconomics	3		3
<i>(If you are required to take MA 104 Elementary Functions before Calculus I, take the Principles of Economics classes after completing MA 104.)</i>				
College Core—Foreign Language		3		3
All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.				

## Accounting major requirements (27 credits) from the following:\*

BA 101	Financial Accounting II	3
BA 200	Intermediate Accounting I**	3
BA 201	Intermediate Accounting II**	3
BA 300	Cost Accounting I**	3
BA 301	Cost Accounting II	3
BA 310	Taxes I**	3
BA 311	Taxes II	3
BA 325	Analysis of Financial Statements	3
BA 400	Advanced Accounting	3
BA 405	Auditing**	3
BA 406	Forensic Auditing	3
BA 440	Government and Not-for-Profit Accounting	3
BA 470	International Accounting**	3

\*For those students pursuing a CPA, the classes chosen beyond those required must be carefully selected. Your advisor will guide you in your selection of courses to optimize your performance on the CPA exam.

\*\*Required course

Total required for the Business Administration Accounting major is 70 credits. After completing this major and the college core, you will have 6 credits for electives.

## Business Economics major requirements (27 credits)

BA 101	Financial Accounting II	3
BA 321	Corporate Finance II	3
EC 201	Microeconomic Theory	3
EC 202	Macroeconomic Theory	3
EC 225	Money and Banking	3
EC 351	International Trade and Development	3
EC 353	International Finance	3
EC 360	Econometrics	3
EC 380	Game Theory	3

Total required for the Business Economics major is 70 credits. After completing this major and the college core, you will have 6 credits for electives. For the Business core courses, BUEC majors must take BA 351 Statistics II. BUEC students are also strongly encouraged to take MA 112 Calculus II. EC 353 International Finance cannot be used to satisfy a Finance minor. In addition to the Business Economics major, the Economics Department also offers both Bachelor of Arts and Bachelor of Science degrees in Economics. For more information, please see the Economics section.

**Business Education Information Technology (21 credits):**

(See the Education Department section of the *Bulletin* and your advisor for Education minor and teaching certification requirements.) Students receive Business, Computer, and Information Technology Certification—K-12.

BA 150	Managerial Accounting	3
BA 230	Introduction to Entrepreneurship	3
BA 250	Global Business Management	3
or		
BA 251	International Business	3
BA 310	Taxes I	3
BA –	Business Elective 300 level or above	3
CS 110	Computing and Information Science I	3
EL 109	Business Communications	3

BEIT majors must also take CA 235 Introduction to Web Design (*cross-listed as AR 235 for BEIT majors only*) to fulfill their fine arts requirement. The McKenna School's college core recommendation is PL 215 Ethics or PL 216 Ethical Problems. In addition to that portion of the College core satisfied by the business core, three credits of the English requirements are fulfilled by the BEIT required courses. Total required for the Business Education Information Technology major is 64 credits. In addition BEIT students must complete 36 credits of Education requirements and the core curriculum. In total, Business Education majors must complete 142 credits of required classes.

**Finance major requirements (28 to 39 credits):**

The Finance major offers three possible advisement tracks, which are custom designed for differing career paths. Finance students work closely with their adviser to determine which path is most suitable and preferable. Students completing one of the three following tracks will graduate with a B.S. in Finance.

**Corporate Finance Track (28 credits)**

BA 101	Financial Accounting II	3
BA 200	Intermediate Accounting I	3
BA 321	Corporate Finance II	3
BA/EC 353	International Finance	3
BA 362	Investments I: Securities	3
BA 363	Investments II: Derivatives	3
BA 385	Financial Institutions	3
BA 415	Mergers and Acquisitions	3
MA 110/112	Calculus II (MA 112 Recommended)	4

Total required for this track of the Business Administration Finance major is 71 credits. After completing this major and the core curriculum, a student will have five (5) credits for electives. BA 420 Accounting Information Systems is recommended.

**Investment Management Track (28 credits)**

BA 101	Financial Accounting II	3
BA/EC 353	International Finance	3
BA 362	Investments I: Securities	3
BA 363	Investments II: Derivatives	3
BA 385	Financial Institutions	3
BA 485	CFA Review Level 1	3
BA 488	Portfolio Theory	3
BA 489	Valuations and Modeling	3
MA 110/112	Calculus II (MA 112 Recommended)	4

Total required for this track of the Business Administration Finance major is 71 credits. After completing this major and the core curriculum, a student will have five (5) credits for electives.

**Computational Finance Track (+Mathematics Minor) (39 credits)**

BA 101	Financial Accounting II	3
BA/EC 353	International Finance	3
BA 362	Investments I: Securities	3
BA 363	Investments II: Derivatives	3
BA 385	Financial Institutions	3
BA 488	Portfolio Theory	3
BA 489	Valuations and Modeling	3

CS 110	Computer and Information Science I	3
MA 112	Calculus II	4
MA 113	Calculus III	4
MA 114	Ordinary and Partial Differential Equations	4
MA 115	Linear Algebra	3

Total required for this track of the Business Administration Finance major is 82 credits. After completing this major, the mathematics minor, and the core curriculum, a student will have zero credits for electives. Students must complete 130 credits to graduate.

**International Business major requirements (26-27 credits):**

BA 150	Managerial Accounting	3
BA 250	Global Business Management	3
BA/EC 353	International Finance	3
BA 395	Global Marketing	3
Modern Languages: Two courses beyond the intermediate level or take two intermediate classes of a second foreign language		6
One global history class		3
Choose two of the following:		
BA 525	Global Experience	2
PS 375	International Law	3
EC 351	International Trade	3
PS 242	International Politics	3

Majors are encouraged, but not required to study abroad for one semester. Three credits of history, if that option is elected, of the College core curriculum are satisfied by the major. International Business majors must complete a minor in Accounting, Finance, Marketing, Operational Excellence, Politics or Economics.

Total required for the Business Administration International Business major is 69-70 credits. After completing this major and the core curriculum, you will have 9-10 credits for electives.

**Management major requirements (21 credits):**

BA 150	Managerial Accounting	3
BA 170	Organizational Behavior	3
BA 250	Global Business Management	3
or		
BA 251	International Business	3
BA 490	Organizational Theory	3
BA 492	Operations Management	3
BA —	Business Elective	3
BA 232 Human Resources or any management class 300 level or above, except BA 525 or BA 550		
BA —	Business Elective (Any 300 level management course or above except BA 550).	3

Total required for the Business Administration Management major is 67 credits. After completing this major and the core curriculum, a student will have 9 credits for electives.

**Marketing major requirements (24 credits):**

BA 150	Managerial Accounting	3
BA 330	Advertising and Promotion	3
BA 336	Essentials of Selling	3
BA 380	Consumer Behavior	3
BA 395	Global Marketing	3
BA 397	Marketing Research	3
BA 425	Strategic Marketing	3
BA —	Marketing Elective (Sports Marketing, Internet Marketing or Retail Management)	3

Total required for the Business Administration Marketing major is 67 credits. After completing this major and the college core, you will have 9 credits for electives.



### Minors in Business

The Department recognizes that there are many students who wish to major in other departments of the College, but who would like to complete a minor in business. Most of the courses required for a minor are upper division courses in a particular field, rather than the subjects included within the business core that must be completed by all students majoring within the Department. A student must maintain at least a C (2.0) average in the specific courses required for a minor. Listed below are the courses required for each minor and those course prerequisites that are considered to be essential.

### Accounting

Required courses (4)

BA 100	Financial Accounting I	3
BA 101	Financial Accounting II	3
BA 200	Intermediate Accounting I	3
BA 210	Intermediate Accounting II	3

In addition to the above, any two of the following:

BA 150	Managerial Accounting	3
or		
BA 300	Cost Accounting I	3
BA 301	Cost Accounting II	3
BA 310	Taxes I	3
BA 311	Taxes II	3
BA 325	Analysis of Financial Statements	3
BA 400	Advanced Accounting	3
BA 405	Auditing	3
BA 406	Forensic Auditing	3
BA 420	Accounting Information Systems	3
BA 440	Government and Not-for-Profit Accounting	3
BA 470	International Accounting	3

### Entrepreneurship

BA 102	Survey of Accounting (non-business majors only)	3
or		
BA 100	Financial Accounting I	3
and		
BA 150	Managerial Accounting	3
BA 104	Introduction to Management	3
or		
BA 220	Principles of Marketing	3
BA 230	Introduction to Entrepreneurship	3
BA 265	Management Information Systems (sophomore year)	3
BA 320	Corporate Finance I	3
BA 322	Entrepreneurial Finance	3

### Finance

Required courses (3)

BA 100	Financial Accounting I	3
BA 101	Financial Accounting II	3
BA 320	Corporate Finance I	3

In addition to the above, any three of the following:

BA 321	Corporate Finance II	3
BA 325	Analysis of Financial Statements	3
BA/EC 353	International Finance	3
BA 362	Investments I: Securities	3
BA 363	Investments II: Derivatives	3
BA 385	Financial Institutions	3
BA 415	Mergers and Acquisitions	3
BA 485	CFA Review Level I	3
BA 488	Portfolio Theory	3
BA 489	Valuations and Modeling	3

### International Business

BA 102	Survey of Accounting (non-business majors only)	3
or		
BA 100	Financial Accounting I	3
and		
BA 150	Managerial Accounting	3
EC 101	Principles of Microeconomics	3
EC 102	Principles of Macroeconomics	3
BA 250	Global Business Management	3
BA/EC 353	International Finance	3
BA 395	Global Marketing	3

### Management

Required courses (3-4)

BA 102	Survey of Accounting (non-business majors only)	3
or		
BA 100	Financial Accounting I	3
and		
BA 150	Managerial Accounting	3
BA 104	Introduction to Management	3
BA 170	Organizational Behavior	3

In addition to the above, any three of the following:

BA 150	Managerial Accounting (non-business majors only)	3
or		
BA 232	Human Resource Management	3
BA 250	Global Business Management	3
or		
BA 251	International Business	3
BA 490	Organizational Theory	3
BA 492	Operations Management	3
BA 497	Leadership	3

### Marketing

Required courses (3-4)

BA 102	Survey of Accounting (non-business majors only)	3
or		
BA 100	Financial Accounting I	3
and		
BA 150	Managerial Accounting	3
BA 220	Principles of Marketing	3
BA 330	Advertising and Promotion	3
BA 380	Consumer Behavior	3

In addition to the above, any two of the following:

BA 331	Retail Management	3
BA 333	Sports Marketing	3
BA 335	Internet Marketing	3
BA 336	Essentials of Selling	3
BA 395	Global Marketing	3
BA 397	Marketing Research	3
BA 425	Strategic Marketing	3

### Operational Excellence

Required courses (6)

BA 102	Survey of Accounting (non-business majors only)	3
or		
BA 100	Financial Accounting I	3
BA 104	Introduction to Management	3
BA 386	Culture in Operational Excellence	3
BA 492	Operations Management	3
BA 494	Quantitative Methods, Quality, and Problem Solving in Operational Excellence	3
BA 497	Leadership (Capstone Class)	3
In addition to the above, any one of the following:		
BA 491	Operational Excellence in Service Industry with applications in the Healthcare professions	3
BA 493	Supply Chain Management	3

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## Course Descriptions

### BA 100 Financial Accounting I

Topics include: a general introduction to accounting principles, basic financial statements, the double entry accounting system, the accounting cycle, worksheets and trial balances, merchandising operations, control accounts and subsidiary ledgers, special journals, and internal control and accounting for assets. Offered every semester. Three credits.

### BA 101 Financial Accounting II

Students examine "generally accepted accounting principles" as it applies to the preparation of financial statements of corporations and partnerships. Students prepare financial statements for corporations and partnerships. Students also prepare and utilize the "statement of cash flow." Students study and discuss federal payroll taxes, especially employer liabilities and all journal entries. The course covers financial ratios to be used in the analysis of financial statements. The course analyzes long-term liabilities and all associated entries and also devotes a good deal of time to accounting for investments. Prerequisite: BA 100. Offered every semester. Three credits.

### BA 102 Survey of Accounting

Restricted to non-business majors only. This course examines topics common to BA 100 and BA 101, but at a level that is beneficial for non-business majors. Survey of Accounting is recommended to students who will eventually run their own business or be in an occupation that requires some degree of accounting knowledge. Topics include introduction to financial statements, internal controls, cash and accrual basis of accounting and financial statement analysis. The course was especially designed as a prerequisite for our Entrepreneurial and Operational Excellence minors. Offered every spring semester. Three credits.

### BA 103 Personal Financial Planning

This is a course developed for all students to expose them to basic financial topics that they will encounter after graduation. The course will prepare students to make better/more informed financial decisions as they begin careers and assume family responsibilities. This is a very basic course and does not require any business courses as a prerequisite. The topics that will be covered in the course include: Money management skills (budgeting); consumer credit (loans, credit cards, leases, credit scores); major purchases – housing/autos; insurance/risk management – auto, home, health, life; personal investing – stocks, bonds, mutual funds; and investing for major goals – children's education, purchase house, retirement, etc. Offered every semester. One credit.

### BA 104 Introduction to Management

This is an introductory course designed for all first-year students regardless of major. The course introduces the student to the basic concepts of management. Students learn about the culture of management, strategic policy and decision-making, structure and design of organizations, leadership and communication functions, and operations and information systems management. It serves as a valuable elective course for non-majors who anticipate assuming some sort of management role during their chosen vocation in life. Introduction to Management is designed to focus on the specific needs of novice students and the course serves as the first course in an integrated four-year curriculum designed to develop a student's ethical reasoning abilities. Offered every semester. Three credits.

### BA 150 Managerial Accounting

A study of the use of accounting information in performing managerial functions including planning, controls, cost and financial analysis, costing behavior, and incremental costing. Emphasis is on the use of accounting as a tool for management decision making. Prerequisite: BA 100. Offered every semester. Three credits.

### BA 170 Organizational Behavior

A systematic study of the manager-subordinate relationship as it operates in the environment of an organization. Students develop managerial skills in leadership, motivation, communications, human relations, decision making, and policy formulation. Students learn ways in which these skills can be employed in organizations with established goals, technology and structure. Special attention will be given to how the individual, the work group, and the organization interact to influence the behavior of the business organization and that of its human resources. Offered every semester. Three credits.

### BA 200 Intermediate Accounting I

Topics include: analysis of the balance sheet, cash, inventories, investments, tangible fixed assets, liabilities, intangible assets and miscellaneous topics. Prerequisite: BA 101. Offered fall semester. Three credits.

### BA 201 Intermediate Accounting II

This course focuses on the interpretation and analysis of financial statements and addresses topics concerning the corrections of errors, capital stock, retained earnings and dividends. The course includes case studies. Prerequisite: BA 200. Offered spring semester. Three credits.

### BA 220 Principles of Marketing

This course is an introduction to the theoretical and practical foundations of marketing in a global-managerial framework. The primary marketing decisions variables (product design, pricing, distribution, sales, advertising, and promotion) are introduced and examined from both managerial and consumer perspectives. The relationships among marketing and the other functional areas of business (accounting, finance, and management) are emphasized. Applied economics, electronic commerce, and ethical decision making are interwoven with the substantive topics. Students are exposed to current events in the Wall Street Journal and participate in case studies, group activities, and marketing simulations. No prerequisites. Offered every semester. Three credits.

### BA 225 Money and Banking

A study of the nature and value of money with emphasis upon its relationship to economic activity. The existing financial order, with special attention given to commercial banking. Socio-economic consequences of contemporary monetary-fiscal policy. Prerequisites of EC 101 and EC 102. Offered spring of odd years. Cross-listed as EC 225. Three credits.

### BA 230 Introduction to Entrepreneurship

This course studies the role played by entrepreneurs and small businesses in the American economy. The course will aid the student in both understanding the entrepreneurial process, as well as learning methods of starting successful businesses. Topics include: entrepreneurial traits, small business creation methods and the innovation process, small business management techniques, small business marketing, and financial issues affecting small businesses. Emphasis will be placed on the role that comprehensive business planning has on the success of a small business. Students assist the SVC Small Business DevelopmentCenter with research, marketing, and design of small business plans for actual clients from Westmoreland and Fayette counties. Presentation skills, written work, and interaction with SBDC clients are emphasized. No prerequisites. Offered fall semester. Three credits.

**BA 232 Human Resource Management**

In today's global, economic, social, political and technological environment, an organization's human resources may represent the last sustainable competitive advantage. Regardless of career direction, each of us will find ourselves in the role of employer or employee. This course will provide an overview of the nature of human resource management, as a function within a company, and as part of the task of every effective business and professional leader. We will explore the employment relationship, the ever increasing regulatory environment, methods of creating and sustaining a productive employee population, and the importance of integrating HR management with the business strategy, all from the manager's strategic perspective. Offered spring semester. Three credits

**BA 250 Global Business Management**

Students will be introduced to international trade theory and practical global business applications throughout the term. They will be provided with an overview of the global economy, the globalization debate, country and cultural differences, regional economic integration, and international management decision-making processes. Topics will include globalization, international trade theory, exporting considerations, market research resources and methodology, identification and evaluation of international business customers and/or partners, foreign direct investment, market entry methods, and basic international terms and documentation. Offered spring semester. Three credits.

**BA 251 International Business**

This course examines the role of the multinational corporation in the global economy. Special attention is placed on the importance of culture in doing business globally. International legal aspects, human resource management, marketing, ethics, environmental concerns and finance are targeted. Political, economic and risk factors are also included. Offered every semester. Three credits.

**BA 265 Management Information Systems**

Students are provided with an introduction to the information technology hardware and software platforms, tools, and methodologies utilized in the corporate systems environment. Topics include: hardware, networks, operating systems, databases (e.g. Oracle, IBM DB/2, MySQL), Business Intelligence, Desktop Applications, Business Applications, Electronic Commerce, and Systems Design and Development. The course will also include a detailed examination of the SAP Business One application software. Business majors should take this class during their sophomore year. Offered every semester. Three credits.

**BA 300 Cost Accounting I**

This course provides a thorough study of the three elements of production cost: direct materials, direct labor, and manufacturing expense. The course also provides an application of the aforementioned three elements to job order, cost systems, standard costs, flexible budgets, and break-even analysis. Stress is placed on cost accounting as a "tool of management." Prerequisite: BA 200. Offered fall semester. Three credits.

**BA 301 Cost Accounting II**

Cost Accounting II is a study of cost allocation, capital budgeting, joint and by-product costing. The course emphasizes decision making and provides a detailed examination of process costing and transfer pricing. Prerequisite: BA 300. Offered spring semester. Three credits.

**BA 305 Business Ethics**

This course is designed to focus the business major's critical thinking and ethical reasoning through the lens of contemporary business issues. In addition to completing the theoretical material in the field of business ethics, students complete a series of short written

and oral presentations based on the Taking Sides series. Student presentations utilize a range of resources including the Internet, campus network, Blackboard course software, and Microsoft PowerPoint software. Students are also required to plan a service project to be carried out before graduation. Prerequisite: BA 104 or permission of instructor. Offered every semester. Three credits.

**BA 310 Taxes I**

This course provides students with an introduction to Federal Income Tax Law. The Internal Revenue code is studied and applied to various tax situations of individuals. Topics include gross income, exclusions, business expenses, non-business deductions, and the realization of gain or loss. Prerequisite: BA 100. Offered fall semester. Three credits.

**BA 311 Taxes II**

The preparation of returns for partnerships, s-corporations, and corporations constitutes the subject matter of the course. Prerequisite: BA 100. Offered spring semester. Three credits.

**BA 312 Tax Lab**

This one credit lab will provide students with a working knowledge of web-based tax research tools. Students will use CCH OmniTax, IRS.gov and other online Taxation websites to research primary and secondary resources of tax law used in practice. Students are required to take BA 312 with BA 310 Taxes I. Offered fall semester. One credit.

**BA 320 Corporate Finance I**

This course presents an analysis of the principal financial problems involved within the life cycle of the corporation. A large amount of time is also devoted to ratio analysis, cash budgets, financing fixed and working capital requirements, capital budgeting, the cost of capital, and dividend policy. The course utilizes Microsoft Excel to set up financial statements, to compute financial ratios, to develop charts, and to analyze financial trends. Prerequisites: BA 101 and must buy TIBA II plus calculator. Take sophomore year. Offered every semester. Three credits.

**BA 321 Corporate Finance II**

Topics include Dividend Policy, capital project financing, business valuations, further ratio analysis and changing corporate governance issues. Case studies will be used to provide a practical application for financial theory. Prerequisites: BA 320 and must buy TIBA II plus calculator. Offered spring semester. Three credits.

**BA 322 Entrepreneurial Finance**

This course examines the sources of funding available to entrepreneurs to fund their business and options that they can utilize to harvest their investments. The course will focus on the private debt and equity markets that service start-up and rapidly growing entrepreneurial firms. The course will be divided into four parts. Part I will provide an overview of small business financing and how the entrepreneur should prepare to approach the financial community. In Part II, we will examine the private equity markets that specifically provide financing to new ventures in the form of "seed money." Particular attention will be focused on both angel financing and the venture capital market. Part III examines the private debt markets that provide financing to small firms with a particular emphasis on commercial banks and governmental agencies that are supportive of entrepreneurial ventures. Part IV will cover the options to the entrepreneur to monetize his/her investment. Prerequisites: BA 320. Offered spring semester. Three credits.

**BA 325 Analysis of Financial Statements**

This course emphasizes the use of financial and accounting information. The course is a case study approach to the financial problems of sole proprietorships and corporations. Topics will center around ratio analysis, financial projections, working capital

management, capital budgeting, the cost of capital, capital structure and planning, and dividend policy. Prerequisite: BA 320. Offered spring semester. Three credits.

### **BA 330 Advertising and Promotion**

This course provides a basis for understanding the marketing communication process and how it influences consumer decisions. The overriding objective is to provide a sophisticated and thoughtful approach to the management of advertising and promotion activities. The course draws heavily on the extensive research in consumer behavior and social psychology. Special attention is given to ethical considerations in developing the communication process. Students conduct special projects in observational research, critical analysis of advertising, the internet, and media planning. Students complete a comprehensive advertising campaign. Prerequisite: BA 220. Offered every semester. Three credits.

### **BA 331 Retail Management**

This course examines strategic issues that impact a store's brand image, sustainable competitive advantage and customer satisfaction. In addition, the course examines tactical marketing and merchandising concepts necessary for the implementation of successful retail strategies. Topics covered include shopper behavior, store layout and atmosphere, retail communication mix, in-store pricing and promotion, merchandise planning systems, and customer relationship management. Non-store retailing topics, such as emerging trends in online and multi-channel retailing, are also covered. Students will analyze retail cases, visit a store to observe shopper behavior and examine best practices in topics such as in-store technologies. Students will also develop a new store concept for which they develop a strategic competitive positioning, retail communication mix and store layout. Prerequisite is BA 220. Offered fall semester. Three credits.

### **BA 332 Corporate Communications**

This course will help students hone your corporate communication skills. Each class will begin with a professional or business scenario that reflects the importance of excellent corporate communications and ethical considerations when dealing with the public, the press, and corporate stakeholders. In addition, the class addresses the art of searching for a "good" job. Students prepare a resume, cover letter, and receive aid with the delivery of a "knock your socks off" interview. Prerequisite: Junior or senior status. Offered fall semester. Three credits.

### **BA 333 Sports Marketing**

This course addresses the diverse and rich nature of marketing athletes, teams, leagues, and special events. The primary objective is to cover relevant issues in designing and integrating marketing strategy. In addition to planning the sports marketing mix (product, place, promotion, and price), students are exposed to the increasing globalization of sport, current research in the area of sports marketing, and careers in sports marketing. Extensive treatment is given to understanding consumers as spectators and participants. Prerequisite: BA 220. Offered fall semester. Three credits.

### **BA 335 Internet Marketing**

An exploration of various potential applications of Internet marketing in addition to its obvious role of inducing sales or generating sales leads. Topics include the role of electronic commerce in the marketing mix, advantages of using the Internet as a marketing tool, the ethical and legal constraints of Internet marketing, and creative strategies for implementing Internet marketing campaigns. Current publications, online computer exercises, and class discussions are used to examine marketing via the Internet. Prerequisite: BA 220. Offered fall semester. Three credits.

### **BA 336 Essentials of Selling**

An overview of the role of the sales manager, both at headquarters and in the field, in managing people, resources, and functions of marketing. The challenges of forecasting, planning, organizing, communicating, evaluating, and controlling sales are analyzed. In addition, the changing role of the customer is examined and sales techniques to meet such changing market demands are evaluated. Prerequisite: BA 220. Offered spring semester. Three credits.

### **BA 340 Business Law**

The course provides the student with an intensive analysis of contract and sales law, as well as the study of bailments and personal property. Legal sources, the court system, torts, and criminal law will be explored. U.C.C. sections on negotiable instruments, banking and secured transactions are studied. Federal bankruptcy, real property and estate planning are presented. A focus on business organizations includes agency, partnerships, limited partnerships, and corporations. Offered every semester. Three credits.

### **BA 350 Statistics I**

This course is an introduction to the study of statistics emphasizing descriptive and inferential statistics. Topics include graphical presentation of data, summary descriptive measures (e.g., mean, median, mode, variance, and standard deviation), statistical sampling, probability, probability distributions, expected value, the normal distribution, statistical estimation, hypothesis testing, regression and correlation. Students develop operational and presentational skills in computer applications through the use of statistical and spreadsheet programs. Offered fall semester. Three credits.

### **BA 351 Statistics II**

The course explores multiple regression and correlation, two-sample inferences, non-parametric statistics, analysis of variance, time series analysis, and index numbers. Use of statistical and spreadsheet programs are an integral part of the business statistics curriculum. Prerequisite: BA 350. Offered spring semester. Three credits.

### **BA 353 International Finance**

The course covers the following topics: recent developments in international financial markets, the utilization of foreign exchange and derivative security markets, exchange rate determination, international asset portfolio theory, and financial risk management strategies. Cross-listed as EC 353. Prerequisite: EC 102. Offered fall semester. Three credits.

### **BA 362 Investments I: Securities**

This course is designed to acquaint the student with the general principles of investment, investment analysis, and portfolio management. Modern portfolio theory, investment timing and techniques for analyzing investment selections are considered. Prerequisite: BA 320. Offered fall semester. Three credits.

### **BA 363 Investments II: Derivatives**

Topics include: the alternative trading strategies; the valuation of options; the efficiency of option markets; commodity futures; spot, forward and future prices; empirical evidence on price relationships; hedging and speculation; the portfolio approach; risk and return on futures contracts; interest rate futures; alternative forward loans; options on futures; and currency futures. Prerequisite: BA 320. Offered spring semester. Three credits.

### **BA 380 Consumer Behavior**

The purpose of this course is to study human responses to products and services by linking the upstream conceptual foundations in consumer psychology with its downstream marketplace applications. Accordingly, the extant research in social psychology will



guide the development of marketing strategies. Special attention is given to the scientific method in cognitive psychology. Ethical issues surrounding consumer research are interwoven throughout the course. Students will conduct an experimental research project including hypothesis development, experimental design, data collection and hypothesis testing, and interpretation. This course provides dedicated workshops in SPSS software. Prerequisites: BA 220. Offered every semester. Three credits.

#### **BA 385 Financial Institutions**

The nature and role of financial institutions in the economy. Topics include interest rate structure, regulation, financial markets, and asset and liability management of various types of financial institutions. Emphasis is placed on the relationship between theory and practice. Prerequisite: BA 320. Offered fall semester. Three credits.

#### **BA 386 Culture in Operational Excellence**

This course will focus on the cultural characteristics that are required for a successful and sustained implementation of Operational Excellence in an organization. During the course we will explore more deeply what makes up culture, how culture can be modified and what characteristics are necessary for a culture to support a continuous learning organization. During the second half of the course we will review a methodology to implement these cultural concepts within an organization. We will study how this methodology can lead to an organization that is nimble, efficient, customer-focused and constantly learning. The student will be able to take with them techniques to begin the introduction of Operational Excellence in their organization. Offered fall semester. Three credits.

#### **BA 395 Global Marketing**

This course is an upper-level, managerially-oriented course that offers a systematic treatment of marketing on a global scale. The purpose of the course is to examine the specific issues involved in entering overseas markets and conducting global marketing operations. Special attention is given to analyzing the global economic environment, targeting global markets, sourcing and producing internationally, formulating global marketing strategies, and implementing global marketing mixes. Students are exposed to current events in the Wall Street Journal and participate in case studies and simulations. Prerequisites: BA 220 and EC 102. Offered every semester. Three credits.

#### **BA 397 Marketing Research**

This course introduces students to the descriptive, diagnostic, and predictive roles of marketing research by examining both the substantive and technical domains of the marketing research process. Special attention is given to the survey method. The theory driving the design of this course maintains that one must carry-out research in a field setting to fully understand the processes involved in research. Thus, students will conduct a marketing research project including problem definition, design, data collection, analysis, and interpretation. This course also builds on the statistical foundations obtained in BA 350 and provides dedicated workshops in EXCEL and SPSS. Prerequisites: BA 220 and BA 350. Offered every semester. Three credits.

#### **BA 400 Advanced Accounting**

Topics include: income presentation and interim reporting, disclosure of earnings per share and segmental data, business combinations and consolidated statements, partnership ownership changes and liquidation governmental accounting, accounting for non-profit organizations, estates and trusts and insolvency. Prerequisite: BA 201. Offered spring semester. Three credits.

#### **BA 405 Auditing**

This course explores the field of auditing and public accounting as a career. Topics include conducting and concluding an audit, working papers, internal control and evidence, and the audit of

selected groups of accounts. Prerequisite: BA 200. Offered fall semester. Three credits.

#### **BA 406 Forensic Auditing**

It is estimated that Companies lose, on average, 5-7% of their revenues to fraud schemes each and every year. This course will focus on the "Red Flags" of fraud and effective Risk Management techniques to counter fraud. Students will be introduced to various Forensic Auditing concepts and provided opportunities in a case study setting to apply these concepts to recognize fraud scenarios within various accounting and financial applications such as Financial Reporting, Accounts Payable, Payroll and IT. Significant well known frauds such as Enron, Worldcom, Tyco and our own local LeNature will be studied for clues on how to apply forensic applications to early warning signals to detect frauds before they grow larger. As trained "CSI" professionals, successful students will learn how to apply professional skepticism and a questioning mind to identify signs of fraud. Prerequisite: BA 405. Offered spring semester. Three credits.

#### **BA 415 Mergers and Acquisitions**

This course, Mergers and Acquisitions (M&A), will focus on three general areas. The first is the role M&A plays in corporate America as companies use M&A to achieve short and long-term strategic plans. The second area of focus will be examining and analyzing the strategic business processes that drive M&A activity. The final area of focus is corporate and financial restructuring that leads to the sale of nonstrategic or underperforming business assets. Offered spring semester. Three credits.

#### **BA 420 Accounting Information Systems**

This course examines accounting systems as an integral component of a management information system. The student will obtain an understanding of accounting systems theory, information theory, relational databases and system analysis. The course will also include a detailed examination of the SAP Business One application software. Prerequisite: Junior status or permission of instructor. Offered spring semester. Three credits.

#### **BA 425 Strategic Marketing**

This senior-level course emphasizes the decisions that marketing managers face in their efforts to bring together the objectives and resources of their organizations with the needs and opportunities in the market place. Building on the fundamentals of marketing and economics, special attention is given to the marketing decisions that students are most likely to confront in their careers. The centerpiece of the course is a marketing simulation. Teams of students will be responsible for the analysis, planning, implementation, and control of an on-going firm. Prerequisites: BA 220, BA 330, BA 350. Offered spring semester. Three credits.

#### **BA 440 Government and Not-for-Profit Accounting**

This course focuses on the accounting, financial reporting and auditing issues relevant to the governmental and not-for-profit entities. Topics include the budgeting process (i.e., the recording of the budget and transactions) and the preparation of various statements for governmental units and not-for-profit entities. Additional topics will include the standards of the Government Accounting Standards Board (GASB), the standards of the Financial Accounting Standards Board (FASB), and auditing issues of the "Single Audit" approach as set forth in OMB circular 133. Prerequisite: Senior status or permission of instructor. Offered fall semester. Three credits.

#### **BA 470 International Accounting**

This course introduces the global nature of accounting in business. The course examines a variety of topics including: the comparative study of accounting concepts and reporting in various countries, international accounting standards, accounting problems of multi-

national corporations, and US GAAP requirements for the translation of foreign financial statements. Prerequisite: Senior status or permission of instructor. Offered spring semester. Three credits.

#### **BA 485 CFA Review Level I**

This course serves as a preparation for the Chartered Financial Analyst Exam Level I. Course content focuses on the Candidate Body of Knowledge, which encompasses the following ten areas: "ethical and professional standards, quantitative methods, economics, accounting and corporate finance, global markets and instruments, valuation and investment theory, analysis of fixed-income securities, analysis of equity investments, analysis of alternative investments, and portfolio management." Prerequisite: Second semester senior business majors or continuing education students with BA/BS in hand. In order to take the CFA exam in the summer, you must graduate within six months of the exam; thus, Juniors may take the course, but are not eligible to take the exam. Offered spring semester. Three credits.

#### **BA 488 Portfolio Theory**

This course focuses on portfolio management decisions and strategy; the specification and evaluation of asset management; and the evaluation of portfolio performance. This course will include studies of Mutual Funds and Hedge Funds and will integrate tools acquired in Investment I and Investments II. Prerequisite: BA 362. Offered fall semester. Three credits.

#### **BA 489 Valuations and Modeling**

This course presents a set of valuation tools (such as DCF) to properly value companies. The course formally introduces financial modeling, a coveted skill in the modern business world. Prerequisite: BA 362. Offered spring semester. Three credits.

#### **BA 490 Organizational Theory**

This course is designed to acquaint the student with the theory of organizational processes. Students will examine how organizations evolve and adapt. A strong emphasis will be placed on the application of systems theory and the guidance role managers must play in the institutions of the late 20th and 21st centuries. This course is an upper division seminar and may not be taken prior to a student's senior year. Continuing education students with sufficient background may be admitted with permission of the professor. Prerequisite: BA 170. Offered spring semester. Three credits.

#### **BA 491 Operational Excellence in the Service Industry with Applications in the Healthcare Professions**

This course examines the following topics: challenges facing healthcare, concept of waste and quality in the healthcare environment, application of the Toyota Way to the healthcare industry, and building the healthcare industry of the future. Prerequisite: Junior status. Offered spring semester. Three credits.

#### **BA 492 Operations Management**

This course provides an overview of Lean Manufacturing, the Six Sigma Process, the Toyota Production Process, and the Total Quality Management philosophies of continuous improvement of a process and of process variation. For accounting students, this course will include applications to managerial accounting, auditing, and information systems. Prerequisite: Junior status or permission of instructor. Offered every semester. Three credits.

#### **BA 493 Supply Chain Management**

This course is designed to help the student acquire an understanding of the most current practices being implemented by businesses as they compete to bring to the market place their products and services in an ever more demanding global economy. Students will be introduced to new, and sometime unconven-

tional, tools companies are currently using in an effort to delete inefficiencies from their manufacturing, expenditure and revenue cycles by improving supply chain relationships. Prerequisite: Junior status. Offered fall semester. Three credits.

#### **BA 494 Quantitative Methods, Quality, and Problem-Solving in Operational Excellence**

This course focuses on the quantitative tools utilized in operational excellence. Tools include check sheets, Pareto charts, cause and effect diagrams, run charts, histograms, scatter diagrams, control charts, etc. Students review measures of quality and the implementation of quality improvement techniques. Students also devote a large measure of time to operational excellence problem techniques. Prerequisite: Statistics I or permission of instructor. Offered fall semester. Three credits.

#### **BA 495 Business Policy and Strategy**

This is the capstone course for all business majors and as such covers aspects of the McKenna school curriculum. The class covers the field of strategic management. This course utilizes a multi-performance approach. Each student participates in a simulation where teams operate and control every aspect of a corporation. Each corporation then competes in this virtual reality, utilizing every business course they have taken in various decisions that are required. Students are not only expected to understand the role various levels of management play in strategic planning and control, but are required to demonstrate the abilities throughout the simulation. The course also utilizes case studies to give real-life examples of strategic situations. Students must be able to conduct an internal and external analysis (SWOT, 5 Forces, etc) of the company, which includes an analysis of cultural and political issues. Students must be adept at creating and presenting business applications, cases, etc. on power point technology. Students must demonstrate a fluid facility with major presentation technology, including Internet, Microsoft PowerPoint and Excel, Blackboard, and Smart Board technology. Prerequisite: Senior status. Every semester. Three credits.

#### **BA 497 Leadership**

This course presents a theoretical and applied treatment of a pervasive and challenging task of leading in the new global economy—continuously and successfully dealing with the issues of constant improvement within a framework of ethical leadership. Students will learn the leadership theories, concepts, and applications that will allow them to successfully initiate, analyze, and implement various types of organizational changes. BA 497 is the capstone class for the operational excellence minor. Prerequisite: Junior status. Offered fall semester. Three credits.

#### **BA 500 Independent Study**

May be repeated. Offered every semester. Variable credit.

#### **BA 525 Global Experience**

Spend your spring break in a city abroad. The curriculum varies according to the city visited, but focuses on the various business and cultural themes. Offered spring semester. Two credits.

#### **BA 550 Business Internship**

This course pertains to Business Administration Internships where work experience is utilized to extend the student's learning experience. Students are employed in an area related to their academic endeavor. The purpose of the program is to integrate academic studies and employment activities. Offered every semester. McKenna School students have an upward limit of six credits for internships. Pass/fail optional only. Variable credit up to three credits.

# Chemistry

Matthew A. Fisher, Chairperson

Bettie A. Davis; Caryl L. Fish; Daryle H. Fish; Steven J. Gravelle; Michael Sierk; Jason Vohs

Adjunct Faculty: Beth Bollinger; Laura Wilkinson

Professor Emeriti: William C. Dzombak and Andrew B. Turner

Undergraduate study in chemistry provides students with the background to pursue numerous career paths and interests. These possibilities include graduate school, employment in a wide variety of industrial research positions, chemical sales and management, professional programs such as medical school and law school, art conservation, science policy, journalism, and forensics. The overall goal of the chemistry curriculum at Saint Vincent is to provide students with a solid foundation in various areas of modern chemistry so that they can pursue a variety of career possibilities. The chemistry program at Saint Vincent is approved by the American Chemical Society.

The Chemistry Department offers students the possibility to earn a B.S. degree in Chemistry, Biochemistry, or Environmental Chemistry. Students receiving the B.S. degree in Chemistry are certified by the American Chemical Society. Minors in Chemistry and Biochemistry are also offered. Specific requirements for each of these programs can be found below.

Students may also obtain certification in Secondary Education by receiving a major in Chemistry and a minor in Secondary Education. Interested students may consult the "Teacher Preparation" section and the requirements for Secondary Education under the Education Department.

No matter which degree program a student chooses, he or she will find the following features common to all of the programs offered by the Department.

- The three majors offered by the Chemistry Department build on a common core of chemistry courses (general, organic, physical, analytical, and biochemical).
- These degree programs differ mainly in the courses taken by students in their junior and senior years. Topics found in these major dependent courses include inorganic, polymer and materials chemistry, physical organic, biochemistry and environmental chemistry.
- There exists a continuous focus on writing as a tool for thinking and a critical skill for chemists to develop. All of the Chemistry faculty have participated in the Interdisciplinary Writing Program at Saint Vincent.
- The Chemistry faculty believe that proficiency in a particular discipline is best accomplished when set in the broad context of liberal arts. Therefore, the degree programs in the Chemistry Department include courses in the humanities, social sciences and other natural sciences.
- The curriculum strongly emphasizes a laboratory experience that reflects chemistry as it is currently practiced. Several of the upper-level laboratory courses are taught as "integrated labs," providing faculty and students the flexibility to explore the interdisciplinary nature of chemistry.
- The courses in the Chemistry Department build toward the senior research project, which serves as a "capstone experience" for students. In preparation for their senior research project, students prepare a proposal for original research during the spring semester of their junior year. The research project is then conducted by the students in their senior year under the guidance of one of the Chemistry faculty members. The research project provides the student with a first-hand experience of the nature of scientific investigation. Upon completion of their project, the students write a thesis and present their results to an outside audience, typically at a National Meeting of the American Chemical Society.

## Learning Objectives:

- Students graduating with a degree in chemistry will have an understanding of chemical principles in organic, inorganic, physical and analytical chemistry that allows them to apply those principles to advanced topics. Students in biochemistry and environmental chemistry will be able to apply principles specific to their disciplines to advanced topics.
- Students graduating with a degree in chemistry will be able to perform a variety of modern chemical laboratory techniques and run modern instrumentation. Students in environmental chemistry and biochemistry will be able to perform laboratory techniques specific to their disciplines.
- Students graduating with a degree in chemistry will be able to communicate in both oral and written forms that are appropriate to the modern practice of chemistry. Students should be able to apply the six principles of good writing to their chemistry writing.
- Students in their junior and senior year in chemistry will be able to design, develop, conduct and report on an independent research project.

## Environmental Science

Students who are interested in a multidisciplinary environmental major should consider the environmental science major. All environmental courses are listed under the Environmental Science program.

## Teacher Preparation

### Requirements for Certification in Chemistry (7-12):

See the Education Department for teacher certification requirements in Secondary Education. Interested students must contact the Chairperson of the Education Department and confer with Dr. Caryl Fish in the Chemistry department. All programs begin in the sophomore year by registering for ED 100: Foundations of Education.

## Requirements for a Bachelor of Science Degree in Chemistry (See Core Curriculum requirements.)

### Chemistry Major Requirements (66 credits):

CH 101-102	General Chemistry I, II*	6
CH 103-104	General Chemistry Laboratory I, II*	2
CH 216	Quantitative Analysis	3
CH 218	Quantitative Analysis Laboratory	1
CH 221-222	Organic Chemistry I, II	6
CH 223-224	Organic Chemistry Laboratory I, II	2
CH 228	Introduction to Biochemistry	3
CH 231-232	Physical Chemistry I, II	6
CH 233	Physical Chemistry I Laboratory	1
CH 241	Inorganic Chemistry	3
CH 242	Instrumental Analysis	2
CH 282	Advanced Physical Methods	2
CH 283	Advanced Chemical Methods	2
CH 301	Research Laboratory	2
CH 300, 302	Research Seminar I, II	2
CH 321	Special Topics	3
MA 111-113	Calculus I, II, III*	12
PH 111-112	General Physics I, II	6
PH 113-114	General Physics Laboratory I, II	2

\*General Chemistry I & II with Laboratory fulfill the Natural Science core requirement. Calculus I fulfills the Mathematics core requirement.

## Electives 9 credits

## Requirements for a Bachelor of Science Degree in Biochemistry

(See Core Curriculum requirements.)

### Biochemistry Major Requirements (75 credits):

BL 150,152	General Biology I and II	6
BL 151,153	General Biology I and II Laboratory	2
BL 208	Cell Biology	3
BL 209	Cell Biology Laboratory	1
BL 214	Molecular Genetics	3
BL 215	Molecular Genetics Laboratory	1
CH 101-102	General Chemistry I, II*	6
CH 103-104	General Chemistry Laboratory I, II*	2
CH 221-222	Organic Chemistry I, II	6
CH 223-224	Organic Chemistry Laboratory I, II	2
CH 231-232	Physical Chemistry I, II	6
CH 233	Physical Chemistry I Laboratory	1
CH 242	Instrumental Analysis	2
CH 251	Proteins and Metabolism	3
CH 253	Proteins and Metabolism Laboratory	1
CH 252	Nucleic Acids and Membranes	3
CH 254	Nucleic Acids and Membranes Laboratory	1
CH 282	Advanced Physical Methods	2
CH 301	Research Laboratory	2
CH 300, 302	Research Seminar I, II	2
MA 111-113	Calculus I, II, III*	12
PH 111-112	General Physics I, II	6
PH 113-114	General Physics Laboratory I, II	2

\*General Chemistry I & II with Laboratory fulfill the Natural Science core requirement. Calculus I fulfills the Mathematics core requirement.

## Requirements for a Bachelor of Science Degree in Environmental Chemistry (See Core Curriculum requirements.)

### Environmental Chemistry Major Requirements (73 credits):

BL 150,152	General Biology I and I	6
CH 101-102	General Chemistry I, II*	6
CH 103-104	General Chemistry Laboratory I, II*	2
ES 150	Earth Systems Science	3
ES 152	Earth Systems Science Laboratory	1
CH 216	Quantitative Analysis	3
CH 218	Quantitative Analysis Laboratory	1
CH 221-222	Organic Chemistry I, II	6
CH 223-224	Organic Chemistry Laboratory I, II	2
CH 228	Introduction to Biochemistry	3
CH 231-232	Physical Chemistry I, II	6
CH 233	Physical Chemistry I Laboratory	1
CH 242	Instrumental Analysis	2
CH 276	Advanced Environmental Chemistry	3
CH 277	Methods of Environmental Analysis	2
CH 282	Advanced Physical Methods	2
CH 301	Research Laboratory	2
CH 300, 302	Research Seminar I, II	2
MA 111-113	Calculus I, II, III*	12
PH 111-112	General Physics I, II	6
PH 113-114	General Physics Laboratory I, II	2

\*General Chemistry I & II with Laboratory fulfill the Natural Science core requirement. Calculus I fulfills the Mathematics core requirement.

### Recommended Core Curriculum courses:

SO 161	Environmental Sociology	3
BA 350	Statistics I	3
PS 390	Environmental Law and Policy	3
EL 111	Green Writing: Literature and the Environment	3

### Electives (2 credits)

## Requirements for Minor in Chemistry (Minimum 17 credits):

CH 216	Quantitative Analysis	3
CH 218	Quantitative Analysis Laboratory	1
CH 221-224	Organic Chemistry I, II with Laboratory	8
At least five credits from the following:		
CH 228	Introduction to Biochemistry	3
CH 231	Physical Chemistry I	3
CH 241	Inorganic Chemistry	3
CH 242	Instrumental Analysis	2
CH 276	Advanced Environmental Chemistry	3
CH 321	Special Topics	3

## Requirements for Minor in Biochemistry (20 credits):

CH 216	Quantitative Analysis	3
CH 218	Quantitative Analysis Laboratory	1
CH 221-224	Organic Chemistry I, II with Laboratory	8
CH 251, 253	Proteins and Metabolism with Laboratory	4
CH 252, 254	Nucleic Acids and Membranes with Laboratory	4

## Typical First-Year Schedules

### Chemistry (B.S.)

#### Fall

CH 101	General Chemistry I	3
CH 103	General Chemistry I Laboratory	1
MA 111	Calculus I	4
EL 102	Language & Rhetoric	3
	Modern and Classical Language	3
Total Fall		14

#### Spring

CH 102	General Chemistry II	3
CH 104	General Chemistry II Laboratory	1
MA 112	Calculus II	4
	Social Sciences	3
TH 119	First Theology	3
	Modern and Classical Language	3
Total Spring		17

Total First-Year 31  
All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

### Biochemistry (B.S.)

#### Fall

CH 101	General Chemistry I	3
CH 103	General Chemistry I Laboratory	1
MA 111	Calculus I	4
BL 150	General Biology I	3
BL 151	General Biology I Laboratory	1
EL 102	Language & Rhetoric	3
Total Fall		15

#### Spring

CH 102	General Chemistry II	3
CH 104	General Chemistry II Laboratory	1
MA 112	Calculus II	4
BL 152	General Biology II	3
BL 153	General Biology II Laboratory	1
TH 119	First Theology	3
	Social Sciences	3
Total Spring		18

Total First-Year 33

All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.



## Environmental Chemistry (B.S.)

### Fall

CH 101	General Chemistry I	3
CH 103	General Chemistry I Laboratory	1
MA 111	Calculus I	4
EL 102	Language & Rhetoric	3
	Modern and Classical Language	3
Total Fall		14

### Spring

CH 102	General Chemistry II	3
CH 104	General Chemistry II Laboratory	1
MA 112	Calculus II	4
ES 150	Earth Systems Science	3
ES 152	Earth Systems Science Laboratory	1
TH 119	First Theology	3
	Modern and Classical Language	3
Total Spring		18

Total First-Year 32

All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

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## Course Descriptions

### CH 101 General Chemistry I

A study of chemical principles including atomic structure; chemical bonding; types of chemical reactions; stoichiometry; solution chemistry; and chemistry of the elements. No prerequisite. Offered fall semester. Three credits

### CH 102 General Chemistry II

A study of chemical principles related to quantitative chemical analysis. Topics include the nature of liquids and solids; chemical kinetics; equilibrium; thermodynamics; acids and bases; precipitation reactions; electrochemistry; and nuclear reactions. Prerequisite: CH 101. Three credits.

### CH 103 General Chemistry I Laboratory

Laboratory studies related to the principles in general chemistry with emphasis on quantitative measurements. Must be taken simultaneously with, or after successful completion of CH 101. Offered fall semester. One credit.

### CH 104 General Chemistry II Laboratory

Laboratory studies related to the principles covered in CH 102. Must be taken simultaneously with, or after successful completion of CH 102. One credit.

### CH 107 Chemistry of Daily Life

This course is designed for the non-science major and is an introductory study of the structure and function of organic molecules, including examples from biochemistry and everyday life. Topics include: basic hydrocarbons, functional group chemistry, proteins, carbohydrates and lipids. Selected topics in biochemistry and how drugs work are presented as well as chemical aspects of current issues such as nutrition, and diabetes. This course does not require math skills beyond pre-algebra. Offered spring semester. Three credits.

### CH 108 Chemistry of Daily Life Laboratory

This lab provides non-science majors with an introduction to some elementary methods dealing with the synthesis and reactions of organic molecules, pharmaceutical synthesis, chemical analysis of foods, and characterization of biochemical compounds. Must be taken simultaneously with, or after successful completion of CH 107. Offered spring semester. One credit.

### CH 110 Chemistry of Cooking

Chemistry of Cooking focuses on the chemistry involved in the structure, preparation, color, flavor, aroma, and texture of the foods we eat everyday. CH 110 is designed for the non-science major who is looking to fulfill the science core requirements. The emphasis in this course will be understanding chemical concepts such as physical and chemical changes, chemical bonding, solubility, energy, acids and bases, and an introduction to the structure and function of organic molecules. This course does not require math skills beyond pre-algebra. Offered spring semester odd-numbered years. Three credits

### CH 112 Chemistry of Cooking Laboratory

This lab provides non-science majors with an introduction to laboratory methods dealing with measurement, the chemical analysis of foods, classification of physical and chemical changes, and the synthesis and reactions of organic molecules specific to food chemistry. Must be taken simultaneously with or after successful completion of CH 110. Offered spring semester odd-numbered years. One credit.

### CH 118 Chemistry in Crime

This is a non-major science course which will focus on the chemistry concepts of forensic science. These concepts will help explain how various forms of evidence can be left at the scene of a crime, how the evidence is found, and how the laboratory can determine the relevancy of that evidence. We will be studying basic chemical principles such as chemical bonding, solubility, and the structure and function of organic molecules. This course does not require math skills beyond pre-algebra. Offered spring semester. Three credits.

### CH 119 Chemistry in Crime Laboratory

This lab provides the student basic methods dealing with evidence collection and analysis. We will look at the chemical analysis of fingerprints, paints, fluids, and many other types of evidence which can be collected and analyzed. Must be taken simultaneously with, or after successful completion of CH 118. Offered spring semester. One credit.

### CH 121 Science and Global Sustainability

This course will examine key scientific concepts related to three major aspects of the broader issue of global sustainability - global climate change, feeding the world's population, and threats to world health. Each of these aspects will serve as the focal point for several weeks of the course. Basic concepts of biology, chemistry, and physics will be introduced as appropriate within the context of each aspect. Prerequisites: none. Offered fall semester. Three credits.

### CH 123 Science and Global Sustainability Lab

The laboratory exercises are designed to physically illustrate the principles discussed in CH 121 and to provide students with experience in the process of doing science - asking questions, forming hypotheses, and data analysis. Must be taken simultaneously with, or after successful completion of CH 121. Offered fall semester. One credit.

### CH 216 Quantitative Analysis

This course covers topics in chemistry such as titrations, potentiometry, volumetric analysis, ion specific electrodes, absorption spectroscopy, and chromatography. Prerequisite: CH 102. Offered spring semester. Three credits.

**CH 218 Quantitative Analysis Laboratory**

This course contains laboratory experiments that are related to the principles covered in CH 216. Must be taken simultaneously with, or after successful completion of CH 216. Offered spring semester. One credit.

**CH 221-222 Organic Chemistry I and II**

The basic principles of the chemistry of carbon compounds are developed with emphasis on nomenclature, physical properties, spectroscopy, structure, reactions, mechanisms, and synthesis. Prerequisites: CH 102, 104. Offered every year. Three credits each semester.

**CH 223-224 Organic Chemistry Laboratory I and II**

This laboratory complements CH 221-222 by introducing the basic organic laboratory techniques of synthesis, isolation, and analysis, including chromatography and infrared and nuclear magnetic resonance spectroscopy. Emphasis is placed on developing microscale techniques. Students are encouraged to work more independently as the year progresses. Must be taken simultaneously with, or after successful completion of CH 221-222, respectively. Offered every year. One credit each semester.

**CH 228 Introduction to Biochemistry**

This course is designed to provide an overview of modern biochemistry for chemistry majors and other students with minimal background in biology. The chemistry of amino acids, basic principles of protein structure, enzyme kinetics, lipids and membranes, intermediary metabolism, and nucleic acid chemistry is covered. No previous background in biology is necessary. Prerequisites: CH 221-224. Offered spring semester of odd-numbered years. Three credits.

**CH 231-232 Physical Chemistry I and II**

A study of the laws and theories used by chemists to describe, interpret and predict physical properties and chemical changes. Topics discussed include thermodynamics, kinetics, quantum mechanics, and spectroscopy. Prerequisites: CH 222-224 with grade of C- or better; PH 111-114; MA 111-113. Offered every year. Three credits each semester.

**CH 233 Physical Chemistry I Laboratory**

In this laboratory, students conduct experiments that are based on physical chemical phenomena covered in CH 231 such as gas laws and thermodynamics. Thorough data analysis and report writing are also emphasized in this course. Must be taken simultaneously with, or after successful completion of CH 231. Offered fall semester. One credit.

**CH 241 Inorganic Chemistry**

An in-depth study of special topics in inorganic chemistry including molecular orbital theory, chemical bonding, point group symmetry, acid-base theories, and coordination and organometallic chemistry. Prerequisite: CH 222 with grade of C- or better. Offered fall semester of odd-numbered years. Three credits.

**CH 242 Instrumental Analysis**

The emphasis in this course is on applications of instrumental analysis to all aspects of chemistry. Students will gain knowledge of the theory and usage of a variety of modern instrumental methods including spectrophotometry, spectroscopy, chromatography, and electroanalytical techniques. They will also gain experience in applying their knowledge in solving analytical problems. Prerequisites: CH 216 or CH 253. Offered spring semester. Two credits.

**CH 251 Proteins and Metabolism**

This course is concerned with how macromolecular structures self-assemble, chemical mechanisms of reactions that occur in living systems, and the molecular basis of cellular regulation. Protein structure/ function and metabolism are the central themes of this course. The specific objectives are to familiarize the student with the structure and function of amino acids/peptides/proteins, enzyme catalysis, and regulation, carbohydrate structure and function, and an overview of metabolism, synthetic/degradative pathways and their regulation. Prerequisites: CH 221-224; one year of general biology is strongly recommended. Offered fall semester. Three credits.

**CH 252 Nucleic Acids and Membranes**

This course focuses on two major themes, the structure and function of membranes and the biochemistry of nucleic acids. The topics covered will include: structures of lipids and membranes, membrane proteins, signal transduction, structure of DNA and RNA, DNA replication and repair, RNA synthesis, protein synthesis, and the biochemical basis for control of gene expression. Emphasis throughout the course will be on the molecular mechanisms and protein components involved in various structures and processes. Prerequisites: CH 221-224; one year of general biology strongly recommended. Offered spring semester. Three credits.

**CH 253 Proteins and Metabolism Laboratory**

This laboratory course is intended to expose the student to laboratory aspects of modern protein chemistry and expand on some material covered in CH 251. Students will carry out experiments illustrating physical properties of proteins, protein purification (including various forms of chromatography and electrophoresis), and enzyme kinetics/inhibition. Must be taken simultaneously with, or after successful completion of CH 251. Offered fall semester. One credit.

**CH 254 Nucleic Acids and Membranes Laboratory**

This laboratory course introduces students to experimental techniques used in the study of membranes and nucleic acids. Methods will include membrane structure and dynamics, ligand binding to DNA, DNA electrophoresis, and characterization of nucleic acid/protein complexes. Must be taken simultaneously with, or after completion of CH 252. Offered spring semester. One credit.

**CH 276 Advanced Environmental Chemistry**

This course will incorporate the study of the chemistry of air, water and soil in terms of both the natural and polluted environments. The topics covered will include: stratospheric ozone, chemistry of the troposphere, toxic organic chemicals, natural water chemistry, water treatment processes, and heavy metal contamination in soils. Prerequisite: CH 216. Offered fall semester of even-numbered years. Three credits.

**CH 277 Methods of Environmental Analysis**

A laboratory course emphasizing the sampling, preparation, and analysis of water and air samples. The course is primarily laboratory based in which teams of students work on a set of environmental projects. Students are responsible for the planning, preparation, sampling, analysis, and reporting for each project. Each project will emphasize a different type of environmental matrix and different types of chemical analysis. Sample analysis will include use of atomic absorption spectrophotometry, chromatography, inductively coupled plasma spectrophotometry, turbidity, and conductivity. Prerequisite: CH 216. Offered fall semester of even-numbered years. Two credits.

**CH 278 Advanced Environmental Chemistry Laboratory**

In this laboratory course students will explore the concepts introduced in CH 276 such as air and water chemistry, sustainability, and alternative energy. Thorough data analysis and report writing are also emphasized. This course should be taken with or after successful completion of CH 276. Offered fall semester of even-numbered years. One credit.

**CH 282 Advanced Physical Methods**

This course is an integrated laboratory that introduces advanced students to the physical and instrumental methods used by chemists. Students in this course will learn about (1) the integrated nature of chemical research, (2) a variety of advanced laboratory techniques, and (3) the methods of experimental design and report presentation. The laboratory experiments focus on atomic behavior, molecular structure and kinetics. Taken simultaneously with, or after CH 232 and CH 242. Offered every spring semester. Two credits.

**CH 283 Advanced Chemical Methods**

This course is an integrated laboratory that introduces advanced students to a variety of contemporary topics in experimental chemistry. Students in this course will learn about (1) the integrated nature of chemical research, (2) a variety of advanced laboratory techniques, and (3) the methods of experimental design and report presentation. The laboratory experiments focus on advanced organic chemistry, inorganic chemistry, polymers, and materials science. Taken simultaneously with, or after CH 321. Offered fall semester of odd-numbered years. Two credits.

**CH 285 Teaching of Chemistry**

This course is designed to meet several requirements for chemistry certification. It is also designed to give students practical experience in preparing and teaching chemistry laboratories. In this course students will work with a chemistry laboratory instructor as a lab assistant. They will develop skills in laboratory preparation, management, and developing experiments. In addition, students will develop projects on the history of chemistry, household chemical safety, and laboratory safety. Offered fall semester. Prerequisite or co-requisite: ED 304. Two credits.

**CH 300 Research Seminar I**

This course will introduce the student to the research experience and will include an orientation to the library and use of reference materials. Students will be assigned articles to read and discuss. An introduction to writing and presenting a research proposal will be included. Students will be introduced to the procedure for maintaining a laboratory research notebook. Students must be available to attend CH 302 when outside speakers present seminars on selected topics in that course. Prerequisite: CH 231/233 or CH 251/253 or CH241/283 with a grade of C- or better. Offered spring semester. One credit.

**CH 301 Research Laboratory**

Independent study or investigation involving intensive work with faculty guidance in the laboratory and library. This course includes an assessment of cumulative laboratory skills. Prerequisite: CH 300 with grade of C- or better. Offered fall semester. Two credits.

**CH 302 Research Seminar II**

Presentation of research work completed during the previous semester; the oral presentation is made after the thesis report has been written. Outside speakers may present seminars on selected topics. Prerequisite: CH 301. Offered spring semester. One credit.

**CH 304 Biochemistry Seminar**

This course focuses on writing a critical analysis of the literature on a topic related to biochemistry. Students work largely independently but under the supervision of a faculty member. Concurrent registration in CH 300 or permission of instructor required. Prerequisites: CH 251 and 253. One credit.

**CH 321 Special Topics**

The purpose of this course is to introduce students to topics of contemporary interest in chemistry. Topics discussed are drawn from the following areas: organic and inorganic kinetics, stereochemistry, molecular orbital theory, spectroscopy, electrochemistry, solid state chemistry, polymer science, surface chemistry, and photochemistry. Prerequisites: CH 221-224. Offered spring semester of even-numbered years. Three credits.

**CH 350 Independent Study**

Studies to be chosen and developed by the student with the guidance of the professor directing the study. May be repeated. Variable credit.

**CH 550 Chemistry Internship**

Work experience program extending the learning experience beyond the college into the world of work, through internships, field work and cooperative programs. Students may or may not be paid depending on the site. May be repeated. Variable credit.

# Communication

Melissa Cook, Chairperson  
Ronald D. Davis; Brett Robinson

Adjunct Faculty: Fred Findley; David Safin

The Communication Department of Saint Vincent College is situated within an educational community rooted in the tradition of the Catholic faith, the heritage of Benedictine monasticism, and the love of values inherent in the liberal approach to life and learning. Our mission is to provide a quality undergraduate education for those who seek entrance into graduate school or a career in the field of communication. The courses and internships required for all communication majors provide for the development of intellectual gifts, professional aptitudes, and personal aspirations.

Communication majors first develop a foundation set of communication theory and skills designed to foster ethical communication in a wide variety of contexts. Majors must demonstrate in writing and in oral form an ability to monitor, assess, and practice effective communication within the self, in a dyad, within a small group, in public situations, and for a mass audience. On the basis of these intra-personal, interpersonal, small groups, large group, and multimedia communication skills, the two concentrations offered within the communication major then channel and shape the necessary professional aptitudes.

The two concentrations offered within the communication major are Media Studies and Public Relations and Advertising. In the Media Studies concentration, students apply effective communication skills to the development of a portfolio that demonstrates the ability to create, record, and edit digital media productions. These student projects will demonstrate the kind of professional aptitude necessary for graduate work or for a position in the multimedia field. The Public Relations and Advertising concentration at Saint Vincent College enables the communication major to learn about the rich theoretical history in these fields and apply effective communication and to develop a portfolio that demonstrates the ability to design, produce, and evaluate a professional publication, a public relations campaign, or an advertising campaign. These student projects will indicate the necessary professional aptitude for acceptance into a masters program or employment with an advertising or public relations agency or department, for instance, in a public or non-profit setting.

## Communication Learning Objectives:

- Communication students will use communication technology effectively.
- Communication majors will have the ability to compile a creative portfolio using their own creative work, within their declared concentration of the communication major.
- Communication students will demonstrate effective public speaking skills.
- Communication majors will understand issues of creating ethical verbal and nonverbal messages for specific audiences.
- Communication majors will demonstrate knowledge of communication theory by defining the communication process.

## Requirements for a Bachelor of Arts Degree in Communication

(See Core Curriculum requirements.)

### Major Requirements (39 credits):

#### Communication Core (27 credits)

CA 100	Introduction to Mass Media	3
CA 110	Introduction to Public Relations and Advertising	3
CA 120	Public Presentation	3
CA 130	Introduction to Media Production	3
CA 140	Interpersonal & Organizational Communication	3
CA 200	Film Studies: Communicating with Images and Sound	3
CA 230	Writing for Media	3
CA 235	Introduction to Web Design	3
CA 440	Criticism: Media and Society	3

#### Media Studies Concentration (12 credits)

CA 245	Post Production	3
CA 255	Field Production	3
CA 309	Intermediate Multimedia Design	3
CA 435	Advanced Multimedia Production	3

#### Public Relations and Advertising Concentration (12 credits)

CA 240	Public Relations	3
CA 250	Advertising	3
CA 285	Electronic Media	3
CA 415	Public Relations and Advertising Campaigns	3

#### Minor Requirements (18 credits):

CA 100	Introduction to Mass Media	3
CA 110	Introduction to Public Relations and Advertising	3
CA 120	Public Presentation	3
CA 130	Introduction to Media Production	3
Two of the following courses:		
CA 240	Public Relations	3
CA 250	Advertising	3
CA 245	Post Production	3
CA 255	Field Production	3

#### Typical First-Year Schedule

##### Fall

CA 100	Introduction to Mass Media	3
CA 110	Intro to PR and Advertising	3
or		
CA 130	Intro to Media Production	3
EL 102	Language and Rhetoric	3
PL 101	1st Philosophy	3
Elementary (or Intermediate) Foreign Language		3
Total		16

All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

##### Spring

CA 120	Public Presentation	3
CA 110	Intro to PR and Advertising	3
or		
CA 130	Intro to Media Production	3
TH 119	First Theology	3
MA 104	Elementary Functions	3
Elementary (or Intermediate) Foreign Language		3
Total		15



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## Course Descriptions

### CA 100 Introduction to Mass Media

This course introduces students to the theory, practice, analysis, and ethics of mass communication. Students learn about and discuss the influences and effects of mass media within American culture and the global marketplace. A combination of readings, written assignments, exams, and oral presentations provides students the opportunity to develop knowledge and skills in areas of communication, criticism, and argumentation. Offered every semester. Three credits.

### CA 110 Introduction to Public Relations and Advertising

This course introduces the theory and practice of public relations and advertising by considering the historical development of mass mediated forms of persuasion. Key topics include propaganda, the nature of public opinion, the rise of consumer culture, and the relative truth of advertising and public relations messages. The course provides a foundational knowledge of the themes and questions that continue to inform the advertising and public relations industries, preparing students for more advanced courses in the advertising and public relations concentration. Offered every semester. Three credits.

### CA 111 Photo Images: Composing & Informing

This course provides students with artistic and documentary concepts and shooting strategies for use in creating still digital photo images. Students will apply those strategies to a one-week, shooting assignment in a foreign country or in a local environment during Spring Break. After Spring Break, each student will participate in classroom photo-critiques, selection, modification, printing, and framing of their photos. Offered spring semester. Variable credit.

### CA 120 Public Presentation

Students learn to research, organize, and deliver public presentations with extemporaneous speaking technique. Students present informative, persuasive, group-persuasive, and impromptu speeches within a classroom setting. Students receive written and oral constructive critiques of their speeches based on clear evaluation criteria from their teacher and actively analyze and critique the speeches of their peers. Students learn how to amplify their speech with effective use of a variety of presentational aids. Offered every semester. Three credits.

### CA 130 Introduction to Media Production

This course is an introduction to the digital technology and communication art of video production. Students learn and use variations in shot size, camera position, lighting, movement, and editing style to create short-format video productions. Students learn documentary scene dissection, how to collect natural sound, TV interviewing and reporting techniques, and how to write a news script. Students use video cameras and non-linear digital editing equipment and software. The introductory skills learned in this class provide a foundation for use in more advanced production classes. Students use these productions as part of their personal portfolio. Offered every semester. Three credits.

### CA 140 Interpersonal and Organizational Communication

Students learn the theory and practice of interpersonal communication among family, friends and peer groups as well as within business situations. Students will come to appreciate and recognize the use of nonverbal and verbal communication found within familial, peer, and organizational settings. The use of individual journal writing, combined with formal class lecture, group discussions, and short student presentations, will assist students in analyzing various situations, observations, and personal feelings. The ethics and civility of dyadic and mass communication is central to

the understanding of communication theory while students also learn about conflict management, decision-making, and group skills. Offered every semester. Three credits.

### CA 200 Film Studies: Communicating with Images and Sound

This course teaches the history, method, and art of the visual/aural language used by the creators of significant films that include dramatic, entertainment, and documentary genres. Selected examples of films are shown and analyzed based on criteria established in the textbook. The course requires students to write critiques and take regular quizzes and mid-term and final exams. Offered spring semester. Three credits.

### CA 230 Writing for Media

This course introduces students to various writing styles appropriate for a number of multimedia outlets. Students are trained in basic news and feature writing, as well as blogging and social media messaging. Students read and discuss examples of journalism and literature that exemplify superb storytelling in order to enhance their own writing. The course also develops skills in writing advertising copy, press releases and broadcast scripts. In addition to practicing several multimedia writing styles, students will learn Associated Press style and related media conventions. Prerequisites: CA 100 and 110. Offered every semester. Three credits.

### CA 235 Introduction to Web Design

This course will enable the student to utilize current industry software to develop and design websites that thoughtfully engage the web user. Students will learn the basic principles of design and will apply this knowledge when building their own websites. By the end of the semester, the students should be able to combine communicative, rhetorical, and visual knowledge with an understanding of navigation, content organization, and the common conventions of the web. Offered every semester. Three credits.

### CA 240 Public Relations

Students build on the intellectual awareness, professional attitudes and personal aspirations developed in 100-level communication courses and during internships. Case studies from business, non-profit and governmental PR campaigns are reviewed for an understanding of the decision-making process within these entities. Research, writing, and presentation of a PR campaign in community, media, and government settings will be discussed. A final PR media kit is prepared by students to add to their portfolio documentation. The course provides a conceptual foundation for CA 415. Prerequisites: CA 100 and 110. Offered every semester. Three credits.

### CA 245 Post Production

This course will study the modern approaches and techniques used in the field of video post production and how they are used in the professional realm. Through a variety of projects, students will become competent in video editing, sound mixing, and compression. They will conclude the course with a video portfolio highlighting their talents and abilities that can be used to gain employment. Prerequisites: CA 130. Offered fall semester. Three credits.

### CA 250 Advertising

Building on the basics of advertising theory and practice learned in CA 110, students in this course learn to analyze the life of signs in advertising communication. Key topics include the structure of sign systems, the production and consumption of meaning in contemporary culture, and the role of myth and metaphor in advertising. Students are asked to analyze existing ad campaigns in order to assess their effectiveness and social significance. The course provides a conceptual foundation for CA 415. Prerequisites: CA 100 and 110. Offered every semester. Three credits.

**CA 255 Field Production**

In this course, students will expand their experience in the process and equipment of video field production. Students gain a greater understanding of video camera functions, camera placement and framing, lighting techniques, audio recording techniques, and interview methods through a variety of short-format assignments including, but not limited to, news packages, commercials, public service announcements and interviews.

Prerequisites: CA 130 and 245. Offered spring semester. Three credits.

**CA 285 Electronic Media**

In this course, students will learn the fundamentals of computer graphics, image correction and enhancement, and electronic print publication. In addition to understanding current software programs within the field, students will be taught the basics of layout and design. This course will also include elements of marketing and advertising. Prerequisites: Sophomore standing or above; Communication majors should complete CA 110 prior to CA 285. Instructor permission required. Offered every semester. Three credits.

**CA 309 Intermediate Multimedia Design**

This course covers the integration of web and graphic design software into the production of video. Through a variety of course projects, students will gain a working knowledge of video graphic creation for use within nonlinear editing programs. Other topics to be covered include the use of the web as a method of content delivery through various online channels including social media. This course is designed to prepare students for projects within CA. Prerequisites: CA 235, CA 245, and CA 255. Offered fall semester. Three credits.

**CA 350 Independent Study**

Students engage in a research project of particular interest to the student. Advisor and faculty approval is necessary. Juniors and seniors only. Variable credit.

**CA 360 Special Topics in Communication**

This course explores specific problems, issues, and developments in communication in a professor's field of scholarly expertise, and may include such topics as communication ethics, creativity & visual communication or intermediate web design, for example. Prerequisites: junior or senior standing or permission from the instructor. Offered at various times, not every semester. Three credits.

**CA 415 Public Relations and Advertising Campaigns**

In this final course in the Public Relations and Advertising track, students have the opportunity to utilize theory and concepts learned in previous courses to produce a complete Integrated Marketing Communication campaign. Students develop tools for performing, primary and secondary research, as well as market, product, and company analyses. Individual and teamwork are both explored in this course to prepare students for industry. Prerequisites: CA 120, CA 230, CA 240, CA 250 and CA 285. Seniors only or juniors with permission of instructor. Offered spring semester. Three credits.

**CA 435 Advanced Multimedia Production**

This final course of the Media Track utilizes skills already learned in previous classes to create a dynamic video presentation for a client. Using several software programs, students will work as individuals and as a production team to create the final product. By doing so, students will understand the concept of professional video project management and will be prepared for careers in this ever-growing field. Prerequisite: CA 309. Offered spring semester. Three credits.

**CA 440 Criticism of Media and Society**

This capstone seminar for all communication majors serves to enhance students' critical, ethical, and communicative response to the maelstrom of media images and content that continuously confronts us throughout our daily lives. Students employ prominent contemporary rhetorical perspectives to evaluate a variety of mass media (including television, film, novels, advertising, Internet, etc.) through in-class presentations, discussions, written assignments, final examination, and a series of critical essays. These activities enrich students' abilities to understand the form, content, and context(s) of any communication, and subsequently, to become more effective and ethical communication professionals. CA juniors and seniors only. Offered every semester. Three credits

**CA 550 Communication Internship**

Students work in a supervised and evaluated internship enabling communication majors to enrich their academic experience with involvement in an appropriate career organization or facility. Variable credit.

# Computing and Information Science

David E. Carlson, O.S.B., Chairperson  
Cynthia J. Martincic, Anthony G. Serapiglia

Professor Emeritus: Harry L. Morrison

Computing and Information Science is concerned with all aspects of computers and computation. The Computing and Information Science Department offers introductory and advanced courses using a Linux server, a Windows server, and networked personal computers. These courses cover computer science and information technology, common applications of computing, and the utilization of computers in society.

The Department offers a major in Computing and Information Science (CIS) with concentrations in Information Technology (IT), Computer Science (CS), Security (SEC), and Bioinformatics (BIN). The curriculum is based on the guidelines of several professional societies. Internships are strongly encouraged, and students have the opportunity to do “real world” projects in collaboration with various businesses.

A CIS major is awarded a Bachelor of Science degree. The CIS major is designed to prepare the student for employment (as a software developer, programmer/analyst, IT professional, etc.) or to prepare the student for graduate school.

### Computing and Information Science Learning Objectives:

- The most important goal is that the CIS graduate should demonstrate the ability to manage the complexity of a technical problem through the use of good problem solving and software engineering skills, as well as sound, ethical decision-making skills. This relates to several Core Goals, especially forming habits of ordered inquiry, logical thinking, and analysis. Also related are the Core Goals on communications skills, writing, and mathematics (since programming can be viewed as applied mathematical logic). Finally, the Strategic Plan Goal on interdisciplinary teaching and learning is promoted by the use of aspects of the Interdisciplinary Writing Program in a number of CIS courses.
- The CIS graduate should have a broad knowledge of the field of computing.
- Additionally, the CIS graduate should be competent in at least two programming languages. This relates most directly to the Core Goals on logical thinking and mathematics.

By the end of the sophomore year, CIS majors typically have successfully completed several computing courses, are proficient in at least one object-oriented programming language, and are ready for internship positions. Internships done for credit are encouraged, and the internships are reviewed each year for the quality of work provided. By the end of the senior year, CIS majors have completed a broad range of CIS coursework, including database management, data structures, operating systems, programming languages, systems analysis and design or software engineering, and will have completed their senior capstone project. The capstone project demonstrates the students’ ability to solve problems independently and to learn new technologies and skills on their own. Coursework in students’ area of concentration, such as networking, security, web technologies, etc. round out the program.

A non-degree certificate program is offered. It is intended for people who wish to study computing, but not to the extent of a complete CIS major. It is especially helpful for someone who already has a degree in a different field.

The typical first course for a non-major interested in programming would be CS 110 (or CS 270 for a mathematics-oriented stu-

dent with a calculus background), while a typical first course for a non-major interested in the use of computers would be CS 101 or CS 103.

Students interested in a career in webpage development may choose either the CS or IT concentration. Furthermore, they should choose CS 205 and CS 305 as two of their CIS electives and are strongly encouraged to also take the Communication department’s webpage courses. Non-majors who would like a career in webpage development are urged to take the same webpage courses in the Communication department and at least CS 110, CS 205, and CS 305 in the CIS department.

### Computer Science Concentration (CS) Requirements for a Bachelor of Science Degree in Computing and Information Science (See Core Curriculum requirements.)

A minor in another field, such as mathematics, is recommended. A statistics course, such as MA 208 or BA 350, is also recommended, especially for those considering graduate school. PL 120 is recommended as one of the courses chosen for the philosophy core requirement.

### Major Requirements (53 credits): The student must complete the requirements listed in the following three categories:

<b>1) CIS Core Courses (30 credits):</b>		
CS 110	Computing and Information Science I	3
CS 111	Computing and Information Science II	3
CS 170	Discrete Structures I	3
CS 171	Discrete Structures II	3
CS 221	Data Structures	3
CS 310	Programming Languages	3
CS 330	Computer Architecture and Operating Systems	3
CS 350	Database Concepts and Information Structures	3
CS 355	Software Engineering	3
CS 357	Computing Science Project I	1
CS 358	Computing Science Project II (in a computer science area)	2

### 2) CIS Electives (15 credits): Any CIS department courses numbered 200 or above may be included. One approved computer course from another department — such as BA 265, BA 420 or CA 235 — may be included, subject to the approval of the CIS department chairperson.

<b>3) CIS Mathematics Requirement (8 credits):</b>		
MA 111, 112	Calculus I and II	8
or		
MA 109, 110	Calculus I and II	8
Either choice gives an 8-credit sequence, 4 credits of which can be used to fulfill the Core Curriculum mathematics requirement.		

### Electives (14 credits)

### Information Technology Concentration (IT) Requirements for a Bachelor of Science Degree in Computing and Information Science (See Core Curriculum requirements.)

A minor in another field, such as business or communication, is recommended. A statistics course, such as MA 208 or BA 350, is also recommended, especially for those considering graduate school. PL 120 is recommended as one of the courses chosen for the philosophy core requirement. Industry certifications are a valuable addition.

### Major Requirements (53 credits):

The student must complete the requirements listed in the following four categories:

#### 1) CIS Core Courses (33 credits):

CS 110	Computing and Information Science I	3
CS 111	Computing and Information Science II	3
CS 170	Discrete Structures I	3
CS 221	Data Structures	3
CS 310	Programming Languages	3
CS 321	Data Communications and Networking Security	3
CS 330	Computer Architecture and Operating Systems	3
CS 350	Database Concepts and Information Structures	3
CS 351	Information Systems Analysis and Design	3
CS 357	Computing Science Project I	1
CS 358	Computing Science Project II (in an information technology area)	2
CS 465	Information Systems Management	3

#### 2) CIS Electives (12 credits):

Any CIS department courses numbered 200 or above may be included. One approved computer course from another department — such as BA 265, BA 420 or CA 235 — may be included, subject to the approval of the CIS department chairperson.

#### 3) CIS Mathematics Requirement (8 credits):

MA 111, 112	Calculus I and II	8
or		
MA 109, 110	Calculus I and II	8

Either choice gives an 8-credit sequence, 4 credits of which can be used to fulfill the Core Curriculum mathematics requirement.

#### 4) Required Social Science Courses (0 credits):

This concentration also requires 6 credits chosen from business and/or economics. These credits can be included under the Core Curriculum social science requirement.

#### Electives (14 credits)

### Security Concentration (SEC)

#### Requirements for a Bachelor of Science Degree in Computing and Information Science

(See Core Curriculum requirements.)

A minor in another field, such as criminal justice or business, is recommended. A statistics course, such as MA 208 or BA 350, is also recommended, especially for those considering graduate school. PL 120 is recommended as one of the courses chosen for the philosophy core requirement. Industry certifications are a valuable addition.

### Major Requirements (53 credits):

The student must complete the requirements listed in the following three categories:

#### 1) CIS Core Courses (39 credits):

CS 110	Computing and Information Science I	3
CS 111	Computing and Information Science II	3
CS 170	Discrete Structures I	3
CS 221	Data Structures	3
CS 225	Computer Security	3
CS 310	Programming Languages	3
CS 321	Data Communications and Networking Security	3
CS 325	Advanced Topics in Security	3
CS 330	Computer Architecture and Operating Systems	3
CS 350	Database Concepts and Information Structures	3
CS 351	Information Systems Analysis and Design	3
or		
CS 355	Software Engineering	3

CS 357	Computing Science Project I	1
CS 358	Computing Science Project II (in a computer security area)	2
CS 465	Information Systems Management	3

#### 2) CIS Electives (6 credits):

Any CIS department courses numbered 200 or above may be included. One approved computer course from another department — such as BA 265, BA 420 or CA 235 — may be included, subject to the approval of the CIS department chairperson.

#### 3) CIS Mathematics Requirement (8 credits):

MA 111, 112	Calculus I and II	8
or		
MA 109, 110	Calculus I and II	8

Either choice gives an eight-credit sequence, four (4) credits of which can be used to fulfill the Core Curriculum mathematics requirement.

#### Electives (14 credits)

### Bioinformatics Concentration (BIN)

#### Requirements for a Bachelor of Science Degree in Computing and Information Science

(See Core Curriculum requirements.)

A minor in another field, such as biology or mathematics, is recommended. BL 260 (Biostatistics) is recommended. PL 120 is recommended as one of the courses chosen for the philosophy Core requirement.

### Major Requirements (53 credits):

The student must complete the requirements listed in the following four categories:

#### 1) CIS Core Courses (36 credits):

CS 110	Computing and Information Science I	3
CS 111	Computing and Information Science II	3
CS 170	Discrete Structures I	3
CS 205	Web Site Design and Programming	3
or		
CS 305	Web Technologies	3
CS 221	Data Structures	3
CS 310	Programming Languages	3
CS 330	Computer Architecture and Operating Systems	3
CS 350	Database Concepts and Information Structures	3
CS 355	Software Engineering	3
BIN 218	Bioinformatics, Genomics and Proteomics	3
BIN 219	Biomedical Informatics	3
BIN 358	Bioinformatics Senior Research	2
BIN 359	Bioinformatics Senior Seminar	1

#### 2) CIS Electives (9 credits):

Any CIS department courses numbered 200 or above may be included.

#### 3) CIS Mathematics Requirement (8 credits):

MA 111, 112	Calculus I and II	8
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This is an 8-credit sequence, 4 credits of which can be used to fulfill the Core Curriculum mathematics requirement.

#### 4) Required Natural Science Courses:

BIN 110, 111	Genes, Cells, and Computers	4
	A lecture and lab course from Biology	4

This concentration also requires the above eight (8) credits of lecture and lab courses from Bioinformatics and Biology. These credits can be used to fulfill the Core Curriculum natural science requirement and so add no additional credits here.

#### Electives (14 credits)



### Typical First-Year Schedule:

(Actual schedules may vary based on students' needs, etc.)

	Fall	Spring
CS 110 Computing and Information Science I	3	
CS 111 Computing and Information Science II		3
Calculus I, II	4	4
EL 102 Language and Rhetoric	3	
TH 119 First Theology		3
First-Year Seminar Course	4	
History	3	3
Social Science	3	3
Total	20	16

### Computing and Information Science Minor (18 credits):

CS 110	Computing and Information Science I	3
CS 111	Computing and Information Science II	3

Twelve additional credits in CIS courses, including at least 3 credits at the 300 level or above. At most 6 of these 12 credits may be at the 100 level.

One approved computer course from another department — such as BA 265, BA 420 or CA 235 — may be included, subject to the approval of the CIS department chairperson.

The courses for the CIS minor can be chosen so as to specialize in one of the following areas: databases, web technologies, mathematics and computing, computer security, and computer languages. See the CIS faculty for assistance in planning the courses for the minor.

### Certificate in Computing and Information Science (30 credits):

Fulfill the requirements for a CIS minor. 18

And complete the following courses:

EL 102	Language and Rhetoric*	3
MA 104	Elementary Functions*	3
BA 100	Financial Accounting I*	3

One other social science course 3

(\*A higher level course may be substituted.)

Of the 30 credits required for the certificate, at least 15 must be taken at Saint Vincent College, including at least 9 credits in CIS courses at Saint Vincent.

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## Course Descriptions

### CS 101 Survey of Computers and Computing

This course presents an overview of current concepts and terminology related to computers and information processing. It is designed for students who have had no previous college-level computing courses. It covers the use of graphical user interfaces, applications software, and telecommunications in a laboratory environment. Not open to CIS majors without departmental approval. Offered spring semester. Three credits.

### CS 103 Animation, the Web, and Security: Three Views of Computing

This is an introductory, non-majors course. Students learn how to create animated objects and worlds using the popular Alice software. An animated ice skater in a virtual world will be used as a key example. Second, students learn different ways of creating web pages. This might lead into further webpage coursework. Finally, computer and Internet security issues are investigated. This includes problems such as identity theft, spyware, and phishing attacks, as well as how to defend against them. Not open to CIS majors without departmental approval. Three credits.

### CS 104 Science of Computing

This course establishes computing as a science and affirms the connection between computing and the sciences. Topics include the scientific method, methodologies used in computer science for evaluating hypotheses, as well as how computing is used as a

tool in other fields of science. The course includes a lab component in which students will get hands-on experience investigating computer science problems. Programs will be set up for students to run so they can test different hypotheses. It will be possible to configure the programs with different parameters to see the impact of running over more data sets, running different algorithms, running in different environments, etc. The experiments involve generating and collecting data that can be analyzed to determine whether preliminary hypotheses are true or false. The data, analysis, and conclusions will be written up as lab reports. This is open to students in any major. Four credits.

### CS 110 Computing and Information Science I

An introduction to problem solving and computer programming using the C++ programming language. Topics include algorithms, program structure, input/output, modularity and parameters, control structures, data abstraction, arrays, text files, and structured techniques. Offered every semester. Three credits.

### CS 111 Computing and Information Science II

A study of advanced programming techniques and applications in C++ continuing from the point where CS 110 ended. Elementary data structures and associated algorithms are examined. Topics covered include arrays, strings, file processing, stacks, queues, linked lists, objects, and recursion. Prerequisite: CS 110. Offered spring semester. Three credits.

### CS 170 Discrete Structures I

An introduction to the topics of discrete mathematics which are appropriate to computing. The major purpose is to help the student obtain some fluency in specific areas of mathematics and to encourage the use of the associated techniques within other computing courses. Topics to be covered include logic, sets, functions, simple proof techniques, algorithms, counting techniques, basics of graphs and trees, and simple finite state machines and grammars. Prerequisite: CS 110, MA 109 or MA 111. Offered fall semester alternate years (Fall 2011). Three credits.

### CS 171 Discrete Structures II

A continuation of CS 170 with an emphasis on the mathematical and theoretical foundations of computer science. Topics to be covered include proofs of correctness, recurrence relations and generating functions, algorithm analysis, computability theory (using Turing machines), complexity theory, and grammars. Prerequisite: CS 170, MA 110 or MA 112. Offered spring semester alternate years (Spring 2012). Three credits.

### CS 205 Web Site Design and Programming

Topics include basic aspects of good web design, introductions to software packages that facilitate webpage construction and introductions to scripting and programming languages that add functionality. This course is intended for both CIS majors and non-majors. Prerequisite: CS 110. Three credits.

### CS 221 Data Structures

The study of data structures and associated algorithms is developed in an object-oriented fashion. This course attempts to show the value of object-oriented design. Various implementations of data structures and the efficiency of the associated algorithms are discussed. Topics to be covered include stacks, queues, keyed tables, recursion, linked lists, binary trees, B-trees and other types of trees, sorting, searching, hash functions, and external sorting. Prerequisite: CS 111. Offered fall semester. Three credits.

### CS 225 Computer Security

This course examines both the theory and practice of computer and network security. Topics include cryptography, spyware, viruses, sniffers, rootkits, back doors, network attacks, Trojan

horses, intrusion detection, and firewalls. Examples of attacks and how to protect against them will be drawn from both the Windows and Unix/Linux worlds. Hands-on exercises are included. Prerequisite or corequisite: CS 110. Three credits.

### **CS 250 User Interface Design**

Good decisions involving the design of a user interface can lead to programs that are easier for end users to execute. Code that is written by programmers who are sensitive to ergonomic issues will execute faster, have fewer errors, require less training time and ultimately give its end user a greater sense of satisfaction. This course will discuss the many issues involving such human-computer interaction. In addition, course participants will program interface applications using VB .NET. Prerequisite: CS 111. Three credits.

### **CS 251 Introductory Computer Graphics**

Computer graphics is the art and science of communicating information using images that are generated and presented through computation. This requires the design and construction of models that represent information in ways that support the creation and viewing of images, the design of devices and techniques through which the person may interact with the model or the view, the creation of techniques for rendering the model, and the design of ways to preserve the images. In this course, both the mathematical foundations and practical implementation of these concepts will be explored with the help of a standard API. Prerequisites: CS 221 and either MA 110 or MA 112. Three credits.

### **CS 255 Introduction to Artificial Intelligence**

This course will present overviews of the roots of artificial intelligence, predicate calculus, the importance of search and search techniques, knowledge representation and knowledge-based problem-solving, the complexity of natural language and machine learning. In addition to other assignments, students will be required to complete projects using languages and techniques, which will be introduced during the course. Prerequisite: CS 111. Three credits.

### **CS 270 Introduction to Numerical Computation**

An introduction to the algorithms of scientific computation and their application to problems in algebra and calculus. Topics covered include number representation, error analysis, programming techniques, function evaluation, solutions of nonlinear equations, solutions of linear systems, numerical integration, and solutions of differential equations. Prior programming experience is not required. Prerequisite: MA 109 or MA 111. Offered spring semester alternate years (Spring 2012). Three credits.

### **CS 305 Web Technologies**

This course focuses on more complex web technologies than are covered in CS 205. The majority of the course involves building an ecommerce site and using webpages as front-ends to server-based databases. Prerequisite: CS 205 or CS 111. Three credits.

### **CS 310 Programming Languages**

This course examines the features, implementation, and design of programming languages. Various high-level programming languages representing different programming paradigms will be covered. Java will be used as the primary example of an object-oriented programming language. Programming language translation and runtime features such as storage allocation will be among the topics that are considered. Prerequisite or corequisite: CS 221. Offered spring semester alternate years (Spring 2012). Three credits.

### **CS 321 Data Communications and Networking Security**

This course covers the major areas of data communications and networking. It uses the ISO layered approach and focuses especially on the TCP/IP protocols and the Internet. LAN technologies and the configuration of routers and switches are also included. Although this course is taught at the junior/senior level, there is no formal prerequisite. Three credits.

### **CS 325 Advanced Topics in Security**

This course explores advances topics in computer security such as computer forensics, malware analysis, secure coding, and penetration testing of web applications. The course requires a basic knowledge of security issues and a programming background. Prerequisite: CS 111. Three credits.

### **CS 330 Computer Architecture and Operating Systems**

Computer architecture and operating systems are covered using the multilevel machine approach, with particular attention paid to the microprogramming level, the conventional machine level, and the operating system level. Linux and/or Windows server operating systems are used as case studies. Prerequisite: CS 111. Offered spring semester alternate years (Spring 2013). Three credits.

### **CS 350 Database Concepts and Information Structures**

This is a first course in modeling complex organizations of data. It includes a review of logical file structures and access methods. Information structures and databases are studied, with detailed work using Access and SQL. Prerequisite: CS 111. Offered fall semester. Three credits.

### **CS 351 Information Systems Analysis and Design**

An investigation of the discipline of systems analysis in relation to the information system life cycle. Structured and object-oriented techniques of analysis and design applicable to current system documentation and the development of general systems solutions are presented. Topics include process and data flows, I/O designs, and systems modeling. Problem solving and communication skills employed in the transition from analysis to design are stressed. Prerequisite: CS 111. Offered fall semester alternate years (Fall 2013). Three credits.

### **CS 355 Software Engineering**

This course will cover methodologies for program construction which will allow software of high quality to be constructed, where high quality software is defined as software which is reliable and reasonably easy to understand, modify, and maintain. The course covers the software development life cycle, from requirements (elicitation, modeling, analysis and specification), to design specifications, to implementation, testing and delivery. Also included are project management, project documentation and the development of communications skills through written documentation. Prerequisite: CS 111. Offered spring semester alternate years (spring 2012). Three credits.

### **CS 357 Computing Science Project I**

Using principles and techniques developed in CS 351 or CS 355, a capstone senior project is begun in this course. This includes items such as choosing a project, researching the requirements and technologies needed, and producing a requirements document. A team approach may be used at the discretion of the instructor. Some projects may be projects for real clients. Each project should be done in an area related to one's concentration. Prerequisite or corequisite: CS 351 or CS 355. Offered fall semester. One credit.

### **CS 358 Computing Science Project II**

Using principles and techniques developed in CS 351 or CS 355, the capstone senior project begun in CS 357 is now implemented. A team approach to software development may be used at the discretion of the instructor. Some projects may be projects for real clients. Each project should be done in an area related to one's concentration. Prerequisite: CS 357. Offered spring semester. Two credits.

### **CS 375 Applied Cryptography**

This course uses number theory and abstract algebra to describe common cryptographic systems. Students will use computer software to solve cryptography problems and will write computer software of their own to handle some types of cryptography, cryptanalysis, etc. Common applications of cryptography will be discussed. Prerequisite: MA 201 and either CS 110 or CS 270. Three credits.

### **CS 450 Independent Study in Computing and Information Science**

An independent study may be possible by arrangement with an individual faculty member. Course may be repeated with a different topic. Variable credit.

### **CS 465 Information Systems Management**

This course provides an introduction to management information systems, e-commerce, planning, and decision support. It explains how information is used in organizations, the role of information technology professionals, and how information systems are used to an advantage in business settings. Social and ethical issues related to the design, implementation and use of information systems will be addressed. Basic information technology project management skills will be covered as well as the issues and challenges involved in managing an information services department. Offered fall semester alternate years (Fall 2011). Three credits.

### **CS 550 Computing and Information Science Internship**

An internship involves practical work experience, typically with a local business. Course may be repeated. Variable credit. May be done for no credit.

## **Economics**

*Gary Quinlivan, Dean, McKenna School and Program Chairperson  
Andrew R. Herr; Peter M. Hutchinson; Carla Zema*

*Adjunct Faculty: Joseph Polka*

Given a close collaboration with an excellent mathematics department at Saint Vincent College, the McKenna School's Economics Department is nationally ranked and is known for offering one of the best Ph.D. undergraduate preparations in the United States. The curriculum of the Economics Department is designed to provide a comprehensive education in both theoretical and applied economics. The economics program seeks to provide a strong academic foundation for understanding the complexities of economic activity and decision making within both the private and public sectors and for understanding the relationship between the economy and society as a whole. It seeks to enable students to apply rigorous analysis to economic issues and problems through the use of market-oriented theoretical models, quantitative techniques, and economic reasoning.

The study of economics, as part of the liberal arts and sciences approach to learning, helps students understand one of the most fundamental facets of human life in civil society—economic activity—and helps prepare them to effectively address the socioeconomic challenges and opportunities of contemporary public life. In addition to general economic theory and analysis, the special strengths of the Department include finance (public and international), international trade, game theory, econometrics, and experimental economics. In conjunction with the Center for Political and Economic Thought, the Department also seeks to provide exceptional educational experiences in the study of contemporary public policy and major issues in public life. Through these approaches and by working closely with its students, the goal of the Department's economics major is to help students achieve a strong academic background for successful graduate studies or professional employment. The Department of Economics awards the following degrees: Bachelor of Arts in Economics, Bachelor of Science in Economics and Bachelor of Science in Business Economics degrees. The B.S. in Economics degree is designed for students intending to pursue graduate studies in economics, finance, or M.B.A programs with more demanding quantitative requirements. A double major in Mathematics and Economics is also offered for these students. The B.A. in Economics degree is designed for preparation for law school or other professional oriented graduate studies. The B.S. in Business Economics is designed for students planning for immediate employment in business, government, or the nonprofit sector. (For more information on the Business Economics major, please see the Business Administration section.) For students interested in gaining a disciplined understanding of economics, courses in the department may be taken to satisfy the social science requirement of the College core.

The major's capstone requirement is a senior thesis that incorporates original research efforts. The thesis is written in conjunction with EC 480 and is taken during the senior or junior year.

Students are encouraged to join the staff of Center for Political and Economic Thought, which sponsors various lecture series, conferences, and publications; the Economics Club; and Mock Trial Team. The Economics Department is the Delta Sigma branch of Omicron Delta Epsilon, which is the national honor society for outstanding economics students.

### **Economics Learning Objectives:**

- Provide a comprehensive education in both theoretical and applied economics;
- Provide a strong academic foundation for understanding

the complexities of economic activity and decision making within both private and public sectors and for understanding the relationship between the economy and society as a whole;

- Enable students to apply rigorous analysis to economic issues and problems through the use of market-oriented theoretical models, quantitative techniques and economic reasoning.

*For more information on the Business Economics major, please see the Business Administration Section.*

#### Requirements for B.A. degree in Economics (43 credits):

(See Core Curriculum requirements.)

BA 350	Statistics I	3
EC 101	Principles of Microeconomics	3
EC 102	Principles of Macroeconomics	3
EC 201	Microeconomic Theory	3
EC 202	Macroeconomic Theory	3
EC 225	Money and Banking	3
EC 351	International Trade & Development	3
EC/BA 353	International Finance	3
EC 360	Econometrics	3
EC 380	Game Theory	3
EC 390	Experimental Economics	3
EC 480	Senior Thesis	3
MA 109/111	Calculus I	4
PS 100	Principles of American Politics	3

This program satisfies the mathematics and the social science core. After completing this major and the core curriculum, a student will have 33 credits for electives.

#### Requirements for B.S. degree in Economics (53 credits):

(See Core Curriculum requirements.)

BA 350	Statistics I	3
or		
MA 208	Probability and Statistics	3
EC 101	Principles of Microeconomics	3
EC 102	Principles of Macroeconomics	3
EC 201	Microeconomic Theory	3
EC 202	Macroeconomic Theory	3
EC 225	Money and Banking	3
EC 351	International Trade & Development	3
EC/BA 353	International Finance	3
EC 360	Econometrics	3
EC 380	Game Theory	3
EC 390	Experimental Economics	3
EC 401	Advanced Microeconomic Theory	3
EC 402	Advanced Macroeconomic Theory	3
EC 480	Senior Thesis	3
MA 109/111	Calculus I	4
MA 110/112	Calculus II	4
PS 100	Principles of American Politics	3

Candidates for the B.S. degree who plan to pursue graduate work in economics, finance, or related disciplines are strongly encouraged to complete, at minimum, MA 113 Calculus III, MA 114 Differential Equations, and MA 115 Linear Algebra. Consult with a member of the departmental faculty for further assistance in planning course work. After completing this major and the core curriculum, a student will have 23 credits for electives.

#### Typical First-Year Schedule

		Fall	Spring
EC 101	Principles of Microeconomics	3	
and			
EC 102	Principles of Macroeconomics		3
PS 100	Principles of American Politics	3	
	Foreign Language	3	3
EL 102	Language and Rhetoric	3	

or may be taken in the Spring

TH 119 First Theology 3

or may be taken in the spring

Mathematics 3-4 3-4

College core 0-6 0-6

All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

#### Requirements for the Minor in Economics (18 credits):

EC 101	Principles of Microeconomics	3
EC 102	Principles of Macroeconomics	3
EC 201	Microeconomic Theory	3
EC 202	Macroeconomic Theory	3
BA 350	Statistics I	3
Plus one elective (3 credits) from the following offerings:		
EC 225	Money and Banking	3
EC 351	International Trade and Development	3
EC/BA 353	International Finance	3
EC 360	Econometrics	3
EC 380	Game Theory	3
EC 390	Experimental Economics	3
EC 401	Advanced Microeconomic Theory	3
EC 402	Advanced Macroeconomic Theory	3

#### Double major in Mathematics and Economics

For those students who will pursue upon graduation an advanced degree (master's or Ph.D. level) in finance or economics.

#### Requirements for B.S. degree in Mathematics and Economics (79 credits in majors):

(See Core Curriculum requirements.)

BA 350	Statistics I	3
or		
MA 208	Probability and Statistics	3
PS 100	Principles of American Politics	3
EC 101	Principles of Microeconomics	3
EC 102	Principles of Macroeconomics	3
EC 201	Microeconomic Theory	3
EC 202	Macroeconomic Theory	3
EC 225	Money and Banking	3
EC 351	International Trade & Development	3
EC 360	Econometrics	3
EC 380	Game Theory	3
EC 390	Experimental Economics	3
EC 401	Advanced Microeconomic Theory	3
EC 402	Advanced Macroeconomic Theory	3
EC 480	Senior Thesis	3
MA 111	Calculus I	4
MA 112	Calculus II	4
MA 113	Calculus III	4
MA 114	Ordinary & Partial Differential Equations	4
MA 115	Linear Algebra	3
MA 203	Complex Variables	3
MA 204	Topology	3
MA 206	Real Analysis I	4
PH 111	General Physics I	3
PH 113	General Physics I Lab	1
PH 112	General Physics II	3
PH 114	General Physics II Lab	1
MA 207	Real Analysis II is strongly suggested.	

This program satisfies the mathematics, natural science, and the social science requirements of the core curriculum for the B.S. After completing this major and the core curriculum, a student will have five (5) credits for electives.



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## Course Descriptions

### EC 101 Principles of Microeconomics

The course introduces the student to economic reasoning, terminology and fundamental concepts. Emphasis is placed on individual economic units such as the household and the firm and how they affect and are affected by the various market structures existing in American capitalism. Offered every semester. Three credits.

### EC 102 Principles of Macroeconomics

An analysis of the functioning of the entire economy, in particular the forces that influence the level of production, unemployment, and prices. Also included are the nature and role of governmental intervention in changing these variables. Offered every semester. Three credits.

### EC 201 Microeconomic Theory

The course provides rigorous analysis of consumer and producer behavior, market structure in both the product and resource markets, and general equilibrium theory. The course emphasizes the theoretical foundations and techniques of Neoclassical microeconomics. Prerequisite: EC 101. Offered fall semester. Three credits.

### EC 202 Macroeconomic Theory

An examination and analysis of aggregate economic relationships in the context of competing Keynesian and Classical paradigms. The course emphasizes differences in the choice of appropriate stabilization policy on the part of government, as well as the theoretical structures of macroeconomic models. A brief introduction to economic growth theory is included. Prerequisite: EC 102. Offered spring semester. Three credits.

### EC 225 Money and Banking

A study of the nature and value of money, with emphasis upon its relationship to economic activity. The existing financial order, with special attention given to commercial banking. Socio-economic consequences of contemporary monetary-fiscal policy. Prerequisites of EC 101 and EC 102. Cross-listed as BA 225. Offered spring of odd years. Three credits.

### EC 351 International Trade and Development

The course emphasizes the theory behind the international exchange of goods and services among nations of the world. Topics include the Heckscher-Ohlin Theorem, offer curves, the influence of market impediments, the pros and cons of free trade, etc. Prerequisite: EC 201 and MA 109 or MA 111. Offered fall semester of odd-numbered years. Three credits.

### EC 353 International Finance

The course covers the following topics: recent developments in international financial markets, the utilization of foreign exchange and derivative security markets, exchange rate determination, international asset portfolio theory, and financial risk management strategies. Cross-listed as BA 353. Prerequisite: EC 102. Offered spring semester. Three credits.

### EC 360 Econometrics

This course is designed as a continuation of BA 350. It is an introduction to regression and correlation analysis, multiple regression, their uses and related problems such as multicollinearity, serial correlation and heteroskedasticity. The course is balanced between theoretical development and applications. Prerequisite: MA 109 or MA 111 and BA 350 or MA 208. Offered spring semester. Three credits.

### EC 380 Game Theory

The primary goal of this course is to study the scope and methods of game theory, focusing on applications arising within the discipline of economics. Game theory attempts to describe the strategic interaction of agents (e.g., consumers, firms, or the government) in situations where there are competing interests and/or the outcomes depend on the actions chosen by the various agents. The course is designed to expose students to the concepts studied by game theorists as well as the set of analytical skills used in game theory. Prerequisites: EC 201, MA 110 or MA 112. Offered fall semester of even-numbered years. Three credits.

### EC 390 Experimental Economics

This course focuses on laboratory experimentation as a research tool in applied economics, particularly in the areas of industrial organization, political economy, and game theory. The course offers both an overview of general principles used in designing, conducting, and evaluating behavior in economic experiments and a review of current research in the field of experimental economics. The areas of study include market behavior in alternative institutional settings, allocation decisions in settings with externalities, and individual choice with uncertainty. Prerequisites: EC 201 and MA 109 or MA 111. Offered fall semester of odd-numbered years. Three credits.

### EC 401 Advanced Microeconomic Theory

This course offers the student an in-depth, mathematical analysis and extension of subject matter covered in EC 201 (Microeconomic Theory). Topics covered include: multivariate economic applications of optimization theory with and without constraints utilizing linear algebra; FOC and SOC; Kuhn-Tucker Conditions; and consumer behavior under conditions of uncertainty. Prerequisites: EC 201, MA 110 or MA 112. Offered spring semester of even-numbered years. Three credits.

### EC 402 Advanced Macroeconomic Theory

This course examines growth theory models, open economy macroeconomic models, macroeconomic models with rational expectations, dynamic modeling, and stochastic macroeconomic models. Prerequisites: EC 202, MA 110 or MA 112. The course utilizes David Romer's Advanced Macroeconomics and selected RE modeling chapters from Bennett McCallum's Monetary Economics: Theory and Policy. Offered spring semester of odd-numbered years. Three credits.

### EC 480 Senior Thesis

The purpose of this seminar is to produce a scholarly piece of research and writing. Prerequisites: EC 201, EC 202, EC 390, and MA 109 or MA 111. Offered spring semester of even-numbered years. Three credits.

### EC 500 Independent Study

May be repeated. Variable credit.

### EC 550 Internship

Pass/Fail option only. Students are subject to the McKenna School's Student Guide to Internship Procedures and Requirements. See Business Administration section of this Bulletin for a detailed description. Variable credit up to three credits.

# Education

*Veronica I. Ent, Chairperson*

*Kathleen Beining; Russell Edwards; Janet Franicola; Kristin Harty; Philip Kanfush; O.S.B, Taundra Krall; Robert Michalow; C. Richard Nichols; Stacie Nowikowski; Wanda Reynolds; Mary Beth Spore; Robert Thomas; Dawn Turkovich*

*Adjunct Faculty: Richard Bane; Debbie Bushey; Steve Clark; Jacqueline Colland; Mary Crone; Deborah Fischer; Robert Fischer; Renee Hajdukiewicz; Donna Hupe; Carol Leshock; Jeffery Mansfield; Sandra Reidmiller; Al Sanfilippo; Rebecca Snyder; Deborah Stock; Richard Volpatti*

## The Education Department at Saint Vincent College offers the following degree programs:

Bachelor of Science in Early Childhood Education, grades PreK-4  
Bachelor of Science in Middle Grade Education, grades 4-8

## The Education Department additionally offers the following public school certification programs:

Art, grades K-12  
Biology, grades 7-12  
Business, Computer and Information Technology, grades K-12  
Chemistry, grades 7-12  
Chinese, grades K-12  
English, grades 7-12  
Environmental Science, grades K-12  
French, grades K-12  
Mathematics, grades 7-12  
Physics, grades 7-12  
Social Science, grades 7-12  
Social Studies, grades 7-12  
Spanish, grades K-12

The philosophy of the department is to provide education students with experiences that develop both depth and breadth in professional skills and knowledge. This is accomplished by combining instruction in basic pedagogy with pertinent field experiences and courses in psychological foundations in education.

The goals of these endeavors include grounding students in the scientific and artistic bases of the teaching profession; preparing them for the roles of the instructor, mentor, caregiver, advocate, and change agent; and refining their skills in the areas of organization, critical thinking, self-reflection, academic and personal integrity, responsible decision making, and creativity.

To prepare for the PreK-12 classroom, students engage in a variety of field-based activities throughout their study in the Education Department. These activities include observations, tutoring, classroom demonstrations, and teaching lessons in their fields. The culminating activity is a 14-week student teaching assignment in a school and classroom appropriate to the certification area.

After completing the teacher certification program at Saint Vincent College, 98% receive Pennsylvania Teacher Certification and 94.5% secure teaching positions or education-related positions within one year of completion.

## Education Learning Objectives:

- Graduate/student-teacher candidates will achieve passing scores and successfully complete the Praxis II exams for each teaching area. Graduate/student-teacher candidates will demonstrate thorough knowledge of content and pedagogical skills in planning and preparation for teaching.

- Graduate/student-teacher candidates will establish and maintain a purposeful and equitable classroom environment for

learning, in which pupils feel safe, valued and respected, by instituting routines and setting clear expectations for pupil behavior.

- Graduate/student-teacher candidates, through knowledge of content, pedagogy and skill in delivering instruction, will effectively engage students in learning by using a variety of instructional strategies.

- Graduate/student-teacher candidates will demonstrate the desired qualities that characterize a professional person in aspects that occur in and beyond the classroom.

## Education Minor and K-12 or 7-12 Secondary Education Certification

All students desiring to minor in Education for the K-12 and 7-12 certification areas listed above should declare their minor upon acceptance to Saint Vincent College or as early in their college career as possible.

All Education minors are required to have a major in an academic discipline. In addition to the major, other course requirements include:

1. General studies requirements (usually fulfilled through the Core Curriculum), 2. Required courses in psychology, 3. Studies in education and 4. Student teaching fieldwork. Students should consult other departmental listings and/or their major advisors to learn about requirements in their fields of study.

## REQUIREMENTS FOR EDUCATION MINOR/TEACHER CERTIFICATION IN K-12 AREAS OR 7-12 SECONDARY EDUCATION

In addition to the courses listed below, candidates for certification in secondary education must satisfy the requirements for a major in an academic degree program related to their area of certification. Pennsylvania Department of Education also requires all education certification students to have a minimum of six (6) credits in English [one (1) composition, one (1) literature] and six (6) credits in college mathematics (100-level or above). Completing MA 102 Mathematics for the additional 3-credits of college mathematics beyond the MA 104 core curriculum requirement is recommended for majors not requiring a second mathematics course.

### Courses in psychology (12 credits)

PY 115	Educational Psychology*	3
PY 214	Adolescent Psychology*	3
PY 290	Psychology/Education of the Exceptional Student	3
PY 381	Educational Testing	3

### Courses in basic pedagogy (16 credits)

ED 100	Foundations of Education*	3
ED 205	Strategies and Techniques of Instruction	2
ED 208	Classroom Partnerships and Inclusion	3
ED 220	Reading Instruction for Secondary and Special Learners	2
ED 300-306	Teaching in the Content Area (discipline area)	3
ED 390	Teaching Nonnative and Culturally Diverse Students	3

### Field experiences (16 credits)

ED 101	Field Experience I: Observation and Interaction Laboratory**	1
ED 206	Field Experience II: Strategies and Techniques of Instruction	1
ED 322	Field Experience III: K-12 and Secondary Instruction and Theory	1
ED 400	Field Experience IV: Pre-Student Teaching Practicum	2
ED 410	Field Experience V: Student Teaching Internship	8
ED 411	Professional Seminar	3

\*Also fulfills Core Curriculum requirements.

\*\*ED 207 (Practicum in Education I) may be substituted for ED 101

## Education courses required specifically for secondary Social Studies

ED 109	Physical and Cultural Geography	3
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\*Also fulfills Core Curriculum

Education Minor without Certification

Students may choose an Education minor only without pursuing teacher certification. To earn the non-certification Education minor, students will take all the basic pedagogy courses required in the minor for secondary or K-12 certification and ED 101 totaling eighteen (18) education credits. ED 400 and 410 Student Teaching Field Experiences are not required.

Bachelor of Science in Early Childhood Education, PreK-4

Saint Vincent College offers a four-year Bachelor of Science in Early Childhood Education degree. With this degree, students will fully meet all current Pennsylvania Department of Education early childhood guidelines. The curriculum is designed to offer candidates a full preparation from infants through fourth grade. Students enrolled in this degree program will greatly benefit from the Fred Rogers Center for Early Learning and Children's Media that provides unique opportunities for research, resources, and outreach. In addition, early childhood students are given more opportunities for fieldwork in more settings than before. Saint Vincent College partners with preschools in the area, such as the Barbara Thompson Early Literacy Center, that are accredited and recognized statewide as a premiere model for early learning. It is the design of this major to prepare students for a variety of settings to maximize her/her employment opportunities. Last, all graduates of the B.S. in Early Childhood Education program are given an opportunity to complete an accelerated one-year Master of Science in Special Education degree to broaden their hiring opportunities if desired. Application paperwork and fees are waived for admittance of recent Saint Vincent graduates. See Master's Degrees in Education in this Bulletin for more information.

Bachelor of Science in Middle Grade Education 4-8

Saint Vincent College also offers a four-year Bachelor of Science in Middle Grade Education degree. This program meets and exceeds all Pennsylvania Department of Education guidelines for Option 1: Middle Level Certification. The program provides a wide perspective of teaching young adolescent children in grades four through eight. Candidates are required to select an area of expertise in which they can take coursework to teach as a single-subject on middle school. Candidates may select from four options: Mathematics, Language Arts, Social Studies, or Science. The Education Department has partnered with many local school districts in addition to the Dr. Robert Ketterer Charter School for unique experiences working with alternative education. The Department also offers the Challenge Enrichment Program every summer that offers middle school students an opportunity to explore advanced content by attending a one-week camp. All students are encouraged to participate in fieldwork that offers opportunities to work with children and practice teaching. Last, all graduates of the B.S. in Middle Grade Education program are automatically given an opportunity to complete an accelerated one-year Master of Science in Special Education degree to broaden their hiring opportunities if desired. Application paperwork and fees are waived for admittance of recent Saint Vincent graduates. See Master's Degrees in Education in this Bulletin for more information.

Clearances

All students taking Education courses are required to have obtained Criminal History Record (Act 34) and Child Abuse (Act 151) clearances and a tuberculosis test prior to the start of class. These clearances must be renewed each year. Students will also have to obtain a one-time FBI clearance. Visit your local police station for more information. The FBI clearance will be good for your entire four or more years of study.

Formal Admission to the Undergraduate Teacher Certification Program:

To gain formal admission to the teacher certification program, students must be enrolled in the B.S. in Early Childhood Education, B.S. in Middle Grade Education, or K-12 or 7-12 Education Minor and have earned 48 credits with a minimum cumulative grade point average of 3.0 and have passed the pre-professional skills tests of the PRAXIS examinations. In addition, students must have successfully completed Foundations of Education (ED 100), Observation and Interaction Lab (ED 101), Strategies and Techniques of Instruction (ED 205), and Field Experience II: Strategies and Techniques of Instruction (ED 206) with a grade of B- or higher. The application packet must include a completed application form, official transcripts of all college coursework, and three completed recommendation forms (at least two must be from college faculty members).

Formal Admission to the Post-Baccalaureate Teacher Certification Program:

Saint Vincent College offers graduated students from any accredited institution to earn certification through continuing education. All post-baccalaureate students applying for teacher certification must show evidence of an undergraduate degree, a minimum cumulative GPA of 3.0, and passing scores on the Pre-Professional Skills Tests of the PRAXIS exams. Three completed recommendation forms must be submitted (at least two must be from college faculty members). Students may not register for the upper division field experience courses [Student Teaching Orientation (ED 400), Student Teaching Internship (ED 410), or Professional Seminar (ED 411)] until they have been officially accepted into the teacher certification program.

Students denied acceptance into the Teacher Certification Program may appeal the decision to a review board composed of members of the Education Department and the College Teacher Education Committee. An alternative admissions procedure is available for students who do not meet the required grade point average but who have demonstrated potential to become successful K-12 teachers and have worked with children. See the Education Department for more information on the alternative admissions procedure.

Since the Pennsylvania Department of Education requires a 3.0 GPA, the following courses maybe repeated one (1) time if a student has earned a grade lower than a B-. This option is not required. All 200-level methods for early childhood education, middle grade education, and K-12/secondary education are eligible.

ED 122	Curriculum, Projects, and Play for the Developing Child
ED 230	Social Studies for Early and Special Learners
ED 242	Numerical and Manipulative Math for Early and Special Learners
ED 244	Science and the Environment for Early and Special Learners
ED 250	Reading and Writing for Early and Special Learners
ED 235	Teaching of Science and Mathematics for Middle and Special Learners
ED 237	Teaching of Humanities for Middle and Special Learners
ED 220	Reading Instruction for Secondary and Special Learners

Saint Vincent College also offers alternative certification for people who have been in the work force and are considering teaching as a new career. Those interested in more information about this program should contact the Graduate and Continuing Education Coordinator.

Graduate Studies in Education with or without Certification: (See Graduate Section)



## REQUIREMENTS FOR BACHELOR OF SCIENCE IN EARLY CHILDHOOD EDUCATION (PreK-4) 131-132 CREDITS:

### GENERAL STUDIES REQUIREMENTS FOR EARLY CHILDHOOD CERTIFICATION

All candidates for a B.S. in Early Childhood must meet the following general studies requirements:

HI 106 & 107	Topics in US History*	6
EL 130	Children's Literature: 1900 to Present*	3
AR 100	Art and Music of Western Culture*	3
EL 102	Language and Rhetoric	
and		
EL 208	Pedagogy of Composition*	6
MA 104	Elementary Functions*	3
TH 119	First Theology*	3
	Life Science Biology with lab*	4
	Natural Science with lab	
	(Environmental Science, Field Biology, Chemistry)*	4

\*Also fulfills Core Curriculum requirements.

### Required Studies in Psychology (21 credits)

All candidates for early childhood teacher certification must take the following courses in Psychology:

PY 115	Educational Psychology*	3
PY 201	Applied Statistics and Research	3
PY 212	Child Development	3
PY 251	Family Systems	3
PY 290	Psychology and Education for Exceptional Students	3
PY 308	Cognitive Psychology	3
PY 381	Educational Testing	3

Required Studies in Mathematics

(3 additional credits than general studies)

MA 102	Mathematics for Teachers	3
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### Required Studies in Education (51 credits Early Childhood Education PreK-4)

ED 100	Educational Foundations*	3
ED 101 or 207	Field Experience	1
ED 109	Physical and Cultural Geography	3
ED 122	Curriculum, Projects, and Play for the Developing Child	2
ED 205	Strategies and techniques of Instruction	2
ED 206	Field Experience II: Strategies and Techniques of Instruction	1
ED 208	Classroom Partnerships and Inclusion	3
ED 230	Social Studies for Early and Special Learners	2
ED 242	Numerical and Manipulative Math for Early and Special Learners	2
ED 244	Science and the Environment for Early and Special Learners	2
ED 250	Reading and Writing for Early and Special Learners	2
ED 308	Performance and Visual Arts for Early and Special Learners	2
ED 317	Program Development for Infants and Toddlers	3
ED 318	Field Experience III: Early Childhood Instruction and Theory	3
ED 320	Composition and Language Arts for Upper Elementary	2
ED 325	Physical Health and Wellness for Early Educators	3
ED 330	Early Childhood Leadership and Community Advocacy	3
ED 390	Teaching of Nonnative Speaking and Culturally Diverse Students	3
ED 400	Field Experience IV: Pre-Student Teaching	2
ED 410	Field Experience V: Student Teaching Internship	9
ED 411	Professional Seminar	3

\*Also fulfills Core Curriculum requirements.

## REQUIREMENTS FOR BACHELOR OF SCIENCE IN MIDDLE GRADE EDUCATION (4-8) 137 CREDITS:

### GENERAL STUDIES REQUIREMENTS FOR MIDDLE GRADE CERTIFICATION

All candidates for a B.S. in Middle Grade Education must meet the following general studies requirements:

HI 106 or 107	Topics in US History*	3
HI 258	Pennsylvania History*	3
EL 129	Young Adult Fiction*	3
AR 100	Art and Music of Western Culture*	3
EL 102	Language and Rhetoric	
and		
EL 208	Pedagogy of Composition*	6
MA 104	Elementary Functions*	3
	Earth Space Science with lab*	4
	Life Science with lab*	4
CA 235	Introduction to Web Design*	3
PS 150	Government and Business*	3
TH 119	First Theology*	3

\*Also fulfills Core Curriculum requirements.

### Required Studies in Psychology (15 credits)

All candidates for middle grade teacher certification must take the following foundation courses in Psychology:

PY 115	Educational Psychology*	3
PY 201	Applied Statistics and Research	3
PY 214	Adolescent Development	3
PY 290	Psychology and Education for Exceptional Students	3
PY 381	Educational Testing	3

### Required Studies in Mathematics (6 additional credits than general studies)

MA 102	Mathematics for Teachers	3
MA 103	Geometric and Measurement Theory	3

### Required Studies in Science (4 additional credits than general studies)

ES 106/107	Physical Geology and Lab	4
or		
PH 108/109	Our Dynamic Planet and Lab	4

### Required Studies in Education (39 credits Middle Grade Education 4-8)

ED 100	Educational Foundations*	3
ED 101 or 207	Field Experience	1
ED 109	Physical and Cultural Geography	3
ED 205	Strategies and techniques of Instruction	2
ED 206	Field Experience II: Strategies and Techniques of Instruction	1
ED 208	Classroom Partnerships and Inclusion	3
ED 235	Teaching of Science and Mathematics for Middle and Special Learners	2
ED 237	Teaching of Humanities for Middle and Special Learners	2
ED 311	Field Experience III: Middle Grade Instruction and Theory	3
ED 320	Composition and Language Arts for Upper Elementary	2
ED 390	Teaching of Nonnative Speaking and Culturally Diverse Students	3
ED 400	Field Experience IV: Pre-Student Teaching	2
ED 410	Field Experience V: Student Teaching Internship	9
ED 411	Professional Seminar	3

Also fulfills Core Curriculum requirements.

## Required Studies in one (1) content area: Language Arts, Social Studies, Science, Mathematics (18 credits)

Students enrolled in the B.S. in Middle Grade Education (4-8) are required to take 18 credits in one (1) concentration area in addition to the above requirements. Below are the courses that students should take in one of the areas selected. Please be advised that none of the above courses can count.

**Language Arts** [six (6) courses must include at least one (1) communication course, one (1) writing course, and one (1) literature course]:

EL 110	Introduction to Creative Writing
EL 131	American Literature: Exploration to Civil War
EL 146	Critical Thinking and Creative Thinking
CA 100	Introduction to Mass Media
CA 120	Public Presentation

**Social Studies** [six (6) courses must include at least one (1) economics course, one (1) political science course, one (1) sociology course, and (1) history course]:

HI 123	Global History I
HI 228	Twentieth Century America 1941-1980
EC 101/2	Micro or Macro Economics
PS 121	National Government
SO 106	Sociology and Global Issues

**Science** [five (5) courses not more than two (2) biology, chemistry, environmental science courses]:

CH 101/103	General Chemistry I and Lab
BL 150/151	General Biology and Lab
BL 112	Understanding Biotechnology
PH 103/104	Introduction to Physics and Lab
ES 150/152	Earth Systems Science and Lab

**Mathematics** [five (5) courses]

Recommended courses:

MA 109	Calculus I
MA 110	Calculus II
MA 210	Euclidean and Non Euclidean Geometries
MA 117	Methods of Proof
BA 350	Statistics I

*\*Also fulfills Core Curriculum requirements.*

## Praxis Examination Series

Prior to admission to the teacher certification program, students must pass the PRAXIS 1: Pre-Professional Skills Tests. Students are strongly advised to take the remaining tests prior to or during their student teaching internship.

## Typical First-Year Bachelor or Science in Early Childhood or Bachelor of Science in Middle Grade Education

### Fall Semester (16 credits)

EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Intermediate	Modern or Classical Language	3
AR 100	Art and Music of Western Culture	3
All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.		1
HI 106	Topics in US History I	3
ED 109	Physical and Cultural Geography	3

### Spring Semester (18 credits)

PY 115	Educational Psychology	3
TH 119	First Theology	3
or		
EL 102	Language and Rhetoric	3
ED 100	Foundations of Education	3
MA 104	Elementary Functions	3
HI 107	Topics in US History II	3
PL 101	1st Philosophy	3

## PA Early Childhood Director Credential (9 credits)

Saint Vincent College and the Education Department is committed to providing early childhood professionals with the necessary tools and credentials for providing the best service to our community. As a result, Saint Vincent College offers courses to fully meet the PA Early Childhood Director Credential standards set forth by the Pennsylvania Department of Public Welfare. In addition, the Education Department has collaborated with the Fred Rogers Center for Early Learning and Children's Media to fully integrate our early childhood coursework with fundamentals and resources that Fred Rogers had used in preparation and production of his television outreach for young children. By choosing to obtain an early childhood certification and/or a PA Early Childhood Director Credential from Saint Vincent College, candidates will additionally benefit from the unique resources provided by the Fred Rogers Center. Candidates selecting Saint Vincent College should contact the Coordinator of Graduate and Continuing Education to submit an application.

## Course Descriptions

See the Education Department for course offering rotation.

### ED 100 Foundations of Education

This course is designed to introduce students to the legal principles that establish teaching as a profession and that govern the behavior of teachers. The school as a governmental agency and a state and local institution is examined within a multi-disciplinary context (history, law, philosophy, politics, psychology, and sociology). The Code A Professional Practice and Conduct for Educators is studied. Special emphasis is given to the significance of The Individuals with Disabilities Education Act (IDEA) within the context of compensatory education. Students will also examine racial and cultural diversity, rural and urban educational issues, and the roles of the school and the educator as agents of cultural and educational change. Educational research tools and appropriate instructional technology applications are included. Major emphasis is placed on the development of an educational philosophy. Tubercular check, Act 151 and Act 34 clearances must be obtained before the beginning of class. Three credits.

### ED 101 Field Experience I: Observation and Interaction Laboratory

This field-based course combines thematic lectures and case study analyses with systematic observation in a variety of elementary and secondary school and classroom settings. The goal of this course is to provide an overview of the various dimensions of modern teaching. Tubercular check, Act 151 and Act 34 clearances must be obtained before the beginning of class. This course meets three hours per week. Approximately 20 hours of fieldwork are involved. One credit.

### ED 109 Physical and Cultural Geography

Major areas of study include maps and globes, the earth in space, eco-regions, climate patterns, human habitation, land and water formations, origins of ecological degradation, natural and cultural relationships, and regional studies. The five geographic themes are investigated within the framework of the National

Geographic Standards. The course emphasizes cross-cultural and global perspectives of historical events and movements, and the socio-economic activities of people in their regional environs. A major requirement is the development of a regional profile using geographic relationships. Appropriate research and instructional technology applications are included in the course. This course includes both lecture and laboratory components and meets three hours per week. Tubercular check, Act 151 and Act 34 clearances must be obtained before the beginning of class. Three credits.

### **ED 122 Curriculum, Projects, and Play for the Developing Child**

This Fred Rogers-inspired course explores the importance of understanding the nature of preschool children (3- through 5-years-old), how they learn and techniques for program planning. Understanding the preschooler's nature will lead to the design of preschool rooms and coordinating curriculums with standards. State and national accreditations and rating scales for preschoolers and preschool spaces will be examined and adapted into program plans. Exploring opportunities to involve parents and community to enhance program quality will be explored. Fred Rogers inspired methods will be explored to incorporate meaningful play and authentic experiences into the classroom. Prerequisite: ED 100 or ED 109. Two credits.

### **ED 205 Strategies and Techniques of Instruction**

This course focuses on basic teaching strategies for prospective educators including instructional planning, classroom management, models of instruction, instructional technologies, effective presentation skills and appropriate assessment practices. The selection and organization of content includes such factors as the availability and appropriateness of resources; curriculum standards, including use of the PDE Standards Aligned System; research trends; preferred teaching styles; desired learning outcomes, thinking and study skills, and students' learning and cultural needs. Extensive use is made of taxonomies of learning for defining objectives and analyzing questioning, instructional design, information presentation and assessment strategies. Instructional needs of ESL students and special needs students are addressed within the regular classroom setting. This course includes both lecture and hands-on activities. Tubercular check, Act 151 and Act 34 clearances, must be obtained before beginning of class. Prerequisite: ED 100. Two credits.

### **ED 206 Field Experience II: Strategies and Techniques of Instruction**

This course is designed to be taken concurrently or after ED 205 Strategies and Techniques of Instruction. Students will participate in an authentic teaching experience on campus with school age students to practice techniques and strategies that are taught in ED 205. Students will be instructed, observed, and mentored by a master teacher and administrator. The course is to be taken on Friday afternoons. Tubercular check, Act 151 and Act 34 clearances, must be obtained before beginning of class. Prerequisite: ED 100. One credit.

### **ED 207 Practicum in Education**

The requirements and content of this field-based course vary by arrangement with the instructor. It is designed to offer students opportunities for systematic observation and/or instructional interaction with children in a variety of learning environments. It can be taken in lieu of ED 101 or as an elective for those who wish to earn credit for working in educational settings. Tubercular check and Act 151 and Act 34 clearances must be obtained before the beginning of class. One credit.

### **ED 208 Classroom Partnerships and Inclusion**

This course is designed to provide the full scope of current trends, adaptive technologies, instructional techniques and innovative strategies needed to teach K-12 special learners effectively and an understanding of the need for effective communication. Through the review of learning theory, students will be given methods of teaching in traditional and nontraditional classrooms along with tools for adapting instruction for all learners. Students will also be given the opportunity to practice the dynamics of effective communication that will assist in the development of meaningful partnerships with families and the educational communities. Dynamic inclusion techniques will be practiced. Tubercular check, Act 151 and Act 34 clearances, must be obtained before beginning of class. Prerequisites: ED 205 and PY 290. Three credits.

### **ED 220 Reading Instruction for Secondary and Special Learners**

The ability to "read to learn" is a fundamental skill necessary for success in school for both typical and atypical developing learners. In this course, students learn about instructional strategies and materials that increase comprehension skills and promote success in reading in all subject areas while work with diverse learners. Course topics include: selecting and evaluating appropriate reading materials; using oral, written, and graphic techniques for maximizing understanding and vocabulary development; motivating and maintaining student interest in reading; and identifying and supporting reading disabilities. IEP implementation and use of appropriate technology are also addressed in this course. The class meets three hours per week and requires a related field experience. Tubercular check, Act 151 and Act 34 clearances must be obtained before the beginning of class. Prerequisites: ED 205 and PY 115 or consent of the instructor. Two credits.

### **ED 230 Social Studies for Early and Special Learners**

This course investigates the growth and development of young children within the realm of the expanding environment social studies curriculum. The six disciplines of social studies instruction at the primary grade levels provides the framework for the course structure. The focus of learning will be on pre-service student's ability to design appropriate and engaging lessons for early learners in a preschool and elementary school setting. This will include the incorporation of the Pennsylvania Standards for Social Studies Instruction and the National Council of Social Studies (NCSS) Standards. An emphasis will be placed on appropriate differentiation to address the variety of learning needs that a typical classroom presents. Adaptations to lesson design in the general education environment using co-teaching and inclusionary practices will be a strategic component of the course. Practice demonstrations, simulations and assessment strategies will also be utilized. A required on-site experience will provide authentic classroom interaction with students in the school setting. Prerequisites: ED 205/206 and PY 115. Two credits.

### **ED 235 Teaching of Science and Mathematics for Middle and Special Learners**

This course utilizes a blended learning model in exploring current scientifically-based methodologies for effective teaching in middle grade math and science classroom environments. The course investigates successful strategies and academic standards/anchors necessary for successful teaching in the thematic middle grades. Course content will also include working with special needs and culturally diverse middle graders. The course will require students to prepare equally math and science lessons, microteaching, and field experiences within an integrated middle grade experience. Tubercular check, Act 151 and Act 34 clearances must be obtained before beginning of class. Prerequisites: ED 205/206, and PY 115 or consent of the instructor. Two credits.

### **ED 237 Teaching of Humanities for Middle and Special Learners**

This course utilizes a blended learning model in exploring current literature and composition-based methodologies for effective teaching in middle grade English and social studies classroom environments. The course investigates successful strategies and academic standards/anchors necessary for successful teaching in the thematic middle grades. Course content will also include working with special needs and culturally diverse middle graders. The course will require students to prepare equally English and social studies lessons, microteaching, and field experiences within an integrated middle grade experience. Tubercular check, Act 151 and Act 34 clearances must be obtained before beginning of class. Prerequisites: ED 205/206, and PY 115 or consent of the instructor. Two credits.

### **ED 242 Numerical and Manipulative Math for Early and Special Learners**

This course will provide pre-service teachers current trends, techniques, technologies, and research about mathematical teaching in the special, early elementary, and inclusive settings. Classroom strategies, hands-on numerical techniques and communication, and the use of manipulative tools will be discussed and presented. Through a combination of readings, student research, in-class activities, microteaching and practical experience along with presented curricula enriched by the Fred Rogers archive, students will gain the skills necessary to perpetuate classroom enthusiasm toward mathematics. During much of the in-class time, the students will participate in or present elementary mathematics lessons which parallel the types of lessons and strategies currently being promoted by the National Council of Teachers of Mathematics (NCTM) and other organizations that are interested in quality mathematics instruction at the early elementary level. Tubercular check, Act 151 and Act 34 clearances, must be obtained before beginning of class. Prerequisites: ED 205/206 and PY 115. Two credits.

### **ED 244 Science and the Environment for Early and Special Learners**

This class emphasizes the study of young children's thinking in relation to the content and conceptual basis of science and the environment in which they reside. Differentiated instruction, inquiry, adapted discovery for special learners, and cooperative learning models form the pedagogical base for the study of physical, life, environmental, and natural sciences. This course consists of both lecture and laboratory components including an inquiry-based demonstration and participation lab that provides the opportunity to integrate early learning theory with the content and conceptual knowledge base in science and the environment. This course includes lecture and laboratory components, meets three hours per week and includes a school based field experience. Tubercular check, Act 151 and Act 34 clearances, must be obtained before beginning of class. Prerequisites: ED 205/206, and PY 115 or consent of the instructor. Two credits.

### **ED 250 Reading and Writing for Early and Special Learners**

This course addresses the development of emergent literacy skills in young and special needs children ranging in age from preschoolers through third grade, "learning to read." Emphasis is placed on studying theories of learning, models of instruction, and their application in the design of appropriate language arts lessons for early and special learners. Special attention is given to the topics of phonics instruction, whole language, vocabulary development, and beginning writing skills. The class will also present how to use the Fred Rogers archive and children's literature to enrich reading and writing curriculum as a learning medium with learners. Students are engaged in the planning and presentation of thematic units of instruction and language arts lessons that correlate with State and National Standards. Observations of

language arts lessons in local schools and/or a tutoring experience are required. Tubercular check, Act 151 and Act 34 clearances must be obtained before the beginning of class. Prerequisites: ED 205/206 and PY 115. Two credits.

### **ED 300 Teaching of Foreign Language, K-12**

This course is designed to prepare students for a career in foreign language education. Students will acquire information regarding current and past theories of language acquisition, learning, and teaching. Students will develop a philosophy and style of teaching and are required to design and present lessons for students of various ages, abilities, aptitudes, and physical conditions from diverse socioeconomic and cultural settings, backgrounds, and environments. Students will familiarize themselves with the National Standards for Foreign Language Teaching, the Pennsylvania State Standards K-12, and the ACTFL Proficiency Guidelines. Students must incorporate these standards in their lesson designs and in their instruments for assessment of student performance. Students must also integrate effective technological tools in the design of classroom lessons. There will be opportunities for reflection and self-evaluation concerning one's development as an effective teacher. Membership in professional associations is encouraged. Prerequisites: ED 205/206 and PY 115. Three credits.

### **ED 301 Teaching of English, 7-12**

Topics and experiences include the identification of content area readings and study skills, development and presentation of instructional materials, analysis of teaching strategies and techniques, authentic learning, authentic assessment, and instructional planning aligned with the Pennsylvania Standards in Reading, Writing, Listening and Speaking. Students will learn about current trends in curriculum content and research with special emphasis on how culture and human development affect students' instructional needs. One field-based experience is required. Tubercular check, Act 151 and Act 34 clearances, must be obtained before beginning of class. Prerequisites: ED 205/206, and PY 115 or consent of the instructor. Three credits.

### **ED 302 Teaching of Social Studies, 7-12**

The major emphasis of this standards driven course is the systematic investigation of teaching strategies and techniques, including lesson planning and student micro-teaching demonstrations, authentic learning and assessment, global education, instructional needs of special students, religion in the curriculum, and multicultural education. Current trends and issues in Social Studies education are also explored through required readings in periodical literature and educational research. Special attention is given to the teaching of current events, individualization and differentiation of instructional strategies and techniques, and the utilization of inquiry techniques. Membership in professional associations is encouraged. Appropriate research and instructional technology applications are included. One field-based experience is required. Tubercular check, Act 151 and Act 34 clearances, must be obtained before beginning of class. Prerequisites: ED 205/206, and PY 115 or consent of the instructor. Three credits.

### **ED 303 Teaching of Mathematics, 7-12**

Course topics and experiences include: the identification of content area skills, development of scope and sequence charts, applications of technology to the teaching of mathematics, text analysis, investigation of mathematics curricula with respect to Pennsylvania academic standards and the N.C.T.M. national standards, review of learning theory and its application to teaching methods, identification of specific learning groups and their special needs, and the development and use of teaching materials including written lesson plans and units of instruction. Videotaped micro-teaching and follow-up analyses are required. Membership in professional organizations is encouraged. One field-based



experience is required. This course includes both lecture and laboratory components and meets three hours per week. Tubercular check, Act 151 and Act 34 clearances, must be obtained before beginning of class. Prerequisites: ED 205/206, and PY 115 or consent of the instructor. Three credits.

#### **ED 304 Teaching of Science, 7-12**

Lectures and discussions focus on the philosophy of science; the human learning basis of science instruction; interaction analysis in the classroom; current trends in science curriculum and instruction aligned with the Pennsylvania academic standards; inquiry, direct instruction, cooperative learning, and discussion models of teaching; designing course, unit, and lesson plans; and authentic assessment of learning. Micro teaching, appropriate technology applications, and library research projects are required. Membership in professional associations is encouraged. One field experience is required. This course includes both lecture and laboratory components and meets three hours per week. Tubercular check, Act 151 and Act 34 clearances, must be obtained before beginning of class. Prerequisites: ED 205/206, and PY 115 or consent of the instructor. Three credits.

#### **ED 305 Teaching of Art, 7-12**

This course is designed to introduce the art education student to the teaching of art at the elementary and secondary levels. In addition to weekly class meetings, opportunities for classroom observation and directed teaching strategies will be provided. An emphasis will be on developing a proficiency in art curriculum planning, motivational strategies, art room management, and methods of evaluation in art. Students will also be required to participate mock-teaching and local art museum experiences. Prerequisites: ED 205/206 and PY 115. Three credits.

#### **ED 306 Teaching of Business, Computer and Information Technology**

This is a comprehensive course designed to present the theory and methodology to develop, teach, and evaluate instructional lessons and units relating to business subjects including accounting, business law, career development, communication, computation, economics and personal finance, entrepreneurship, information technology, international business, management, and marketing. Students will also learn about establishing and administering advisory committees, business clubs, and work experiences. School visitations and review of current literature are included. Applications are appropriate to the elementary, middle and high school. Three credits.

#### **ED 307 Practicum II**

The requirements and content of this field-based course vary by arrangement with the instructor. It is designed to offer students opportunities for systematic observation and/or instructional interaction with children in a variety of learning environments. This course may be taken as an elective for those who wish to earn credit for working in educational settings. Tubercular check and Act 151 and Act 34 clearances must be obtained before the beginning of class. One credit.

#### **ED 308 Performance and Visual Arts for Early and Special Learners**

This course addresses the principles, methodology, and decision-making skills essential for teachers to enrich elementary curriculum through the fine arts. It focuses on an integrated interdisciplinary approach that increases teacher and student awareness of the creative processes and their role in promoting child development. This course includes both lecture and laboratory components, meets three hours per week, and includes a school-based field experience. Tubercular check, Act 151 and Act 34 clearances, must be obtained before beginning of class. Prerequisites: ED 205, and PY 115 or consent of the instructor. Two credits.

#### **ED 311 Field Experience III: Middle Grade Instruction and Theory**

This field-based course will be held both on and off campus utilizing local school districts, Saint Vincent College Challenge, and other youth programs for pre-student teaching experiences in the early adolescent setting. Supervised teaching and observations will be conducted to assist students in adapting curriculum and designing lessons for delivering instruction to middle (grades 4-8) learners. Students will have the opportunity to implement their lesson plans and self-evaluate their own practice teaching. Opportunities to observe veteran teachers and the middle school approach to teaching will be offered. Exploration of a variety of techniques to present the same topic to different levels and how to incorporate interdisciplinary teaming will be addresses. Prerequisite: ED 235 or ED 237. Two credits.

#### **ED 317 Program Development for Infants and Toddlers**

This Fred Rogers-inspired course explores the importance of understanding the nature of young children (birth through 2 years) how they learn and techniques for program planning. Through site visits and role play participants will explore the basics of infant care and how to address their physical, emotional and cognitive needs. Appropriate curriculum and room design will be explored and adapted to a variety of infant stages. State and National accreditations and rating scales for infants and infant spaces will be examined and adapted into program plans. The Rogers Center will be used to enhance programming and the selection and use of appropriate materials. Different types of programs available will be discussed. Prerequisite: ED 122. Three credits.

#### **ED 318 Field Experience III: Early Childhood Instruction and Theory**

This field-based course will be held both on and off campus utilizing local PreK learning centers for pre-student teaching experiences in the preschool setting. Supervised teaching and observations will be conducted to assist students in adapting curriculum and designing lessons for delivering instruction to early learners. Students will have the opportunity to implement their lesson plans and self-evaluate their own practice teaching. Opportunities to observe veteran teachers and the Fred Rogers approach to teaching will be offered. Exploration of a variety of techniques to present the same topic to different levels and how to incorporate topics into discovery areas will be a focus. Students will be asked to incorporate room and program design from ED 122 into their teaching experiences. Three credits.

#### **ED 320 Composition and Language Arts for Upper Elementary**

This course addresses the continuing development and refinement of literacy skills during the intermediate grades. The focus is on presenting the components required in a balanced program for language arts instruction. Reading, writing, speaking, and listening strategies across the curriculum are emphasized along with problem solving and higher level thinking skills. Various approaches for reading and writing instruction are examined including the use of basal readers and reading and writing workshops. Guidelines and techniques for teaching grammar, spelling, and handwriting are learned and presented in lesson plans that comply with State and National Standards. Students continue their study of children's literature by reviewing several chapter books, participating in a literature response group, and by developing a literature focus unit. Appropriate instructional technologies are included in this course. Observations of language arts lessons and/or a tutoring experience are required. This course includes both lecture and laboratory components and meets three hours per week. Tubercular check, Act 151 and Act 34 clearances, must be obtained before beginning of class. Prerequisites: ED 205/206 and PY 115. Two credits.



**ED 322 Field Experience III: K-12 and Secondary Instruction and Theory**

This field-based course will be held both on and off campus utilizing local school districts, Saint Vincent College Challenge, and other youth programs for pre-student teaching experiences in the K-12 or secondary setting. Supervised teaching and observations will be conducted to assist students in adapting curriculum and designing lessons for delivering instruction to K-12 and Secondary (grades 7-12) learners. Students will have the opportunity to implement their lesson plans and self-evaluate their own practice teaching. Opportunities to observe veteran teachers and the secondary school approach to teaching will be offered. Exploration of a variety of techniques to present the same topic to different levels and instruction regarding young adult transition to post-secondary education, armed forces, or workforce will be emphasized. Prerequisite: ED 205/206. One credit.

**ED 325 Physical Health and Wellness for Early Educators**

This course involves the study of personal health and wellness as it relates to the early childhood educator when performing as a leader and mentor for young children. This course also includes instruction on the development of physical education activities appropriate for the early learners. The prospective classroom teacher will be provided with a knowledge base in health, fitness, and wellness. Students will learn a rounded approach to life-long wellness as an individual and teacher. Assignments will include lesson planning, exams, physical inventories, microteaching, student discussion, etc. Prerequisites: ED 205 and PY 115. Three credits.

**ED 330 Early Childhood Leadership and Community Advocacy**

This Leadership course focuses on the administrative aspects of Early Childhood, beginning with an historical overview of preschool. It focuses on the role of a director or administrator in both a business and managerial aspect. State and national accreditations for the preschool (DPW, STARS, NAEYC) as well as the director (Director Credential) and Staff (CDA, PDR) are explained and explored. Determining how to write a business plan, quality improvement plan, and the development of handbooks (Parents, Staff and Policy and Procedure) are included in the class work. Practice in developing strategies on how to be a leader not a manager, developing your team, utilizing your team's strengths, and furthering your staff's development. The importance of political advocacy and how to get involved are discussed. Advertising opportunities and designing brochures for enrollment enhancement are a focus. Community engagement groups, parent groups, grants and awards to enhance programming are explored. A final focus on the transitioning of children from preschool to kindergarten and working with a transition team or developing one with your surrounding school districts, preschool providers, and CEG'S. Prerequisite: ED 317. Three credits.

**ED 345 Urban Education Practicum**

The Urban Education Practicum is a summer field-based experience in an urban setting. The course participants work with at-risk elementary-age students in varied settings, including inner city schools, community service centers, and a summer day camp. Participants will (1) work in a classroom setting to help children maintain and develop skills in basic content areas or (2) supervise outdoor activities designed to reinforce basic learning skills and to build teamwork, character, and self-esteem. Requirements include submission of a reflective journal, and participation in 30 hours of training and orientation activities for effectively working with at-risk children in an urban environment. Three credits.

**ED 350 Independent Study**

Open to junior and senior students with the approval of the department chairperson. Independent studies are administered only by special need and on a case-by-case basis. Variable credit.

**ED 390 Teaching Nonnative Speaking and Culturally Diverse Students**

This course is intended to provide both practical and theoretical insights into challenges and difficulties in human communication that result when representatives of different countries interact. The course addresses the history and current realities and principles of the field of second language learning and teaching. It focuses on the needs of the learner, the role of the teacher, cultural differences and international challenges, and the application of methodology in developing communicative competence. Using current techniques and teaching exercises, this course also provides students with applied training in approaches of instruction for non-native speaking learners. Tubercular check, Act 151 and Act 34 clearances, must be obtained before beginning of class. Prerequisites: ED 205 and PY 115. Three credits.

**ED 400 Field Experience VI: Pre-Student Teaching Practicum**

The student registers for ED 400 the semester prior to student teaching. This course is designed to provide supervised instructional experiences with children and adolescents and an interactive didactic seminar to address the prerequisite skills specific to student teaching. Topics include familiarization with instructional aids and materials, reinforcement of basic teaching pedagogy, knowing and understanding school policies, developing rapport with students and faculty, and providing ample opportunities for systematic observation and supervised teaching in the certification area. ED 400 includes a monthly seminar and a commitment of one full day per week of fieldwork for a semester. Requirements include school site teaching with a minimum of two teaching periods observed by the College supervisor. Appropriate research and technology applications are included. Students must have gained formal admission to the teacher certification program before enrolling in this course. Tubercular check and Act 151 and Act 34 clearances must be obtained before the beginning of class. Prerequisites: PY 115, ED 100, ED 101, ED 205, and at least one teaching methods course. Fee. Two credits.

**ED 410 Field Experience V: Student Teaching Internship**

The Student Teaching Internship is a full semester experience. A variety of supplemental assignments are designed to enhance professional competencies. Prerequisites include completion of all other certification requirements, with the exception of Professional Seminar (ED 411). Tubercular check and Act 151 and Act 34 clearances must be obtained before the beginning of class. (Student must take ED 411 concurrently with ED 410). Fee. Nine credits.

**ED 411 Professional Seminar**

The seminar meets weekly and is required of all students who enroll in ED 410. Lectures, demonstrations, and discussions draw upon the immediate problems and experiences of student teaching. Supplemental assignments are designed to assist the student in applying educational principles of instruction in actual classroom settings. Appropriate research and technology applications are included. Additional emphasis is placed on preparation of credentials package. Prerequisites include completion of all other certification requirements with the exception of student teaching. Tubercular check and Act 151 and Act 34 clearances must be obtained before the beginning of class. (Student must take ED 411 concurrently with ED 410) Three credits.

# Engineering

Michael W. Botsko, Chairperson of the Mathematics Department,  
Program Coordinator  
Paul Follansbee

Saint Vincent College, in conjunction with several University Schools of Engineering, offers a five-year cooperative liberal arts and engineering program. The student normally spends three years at Saint Vincent College, during which time a student's studies concentrate on liberal arts subjects and the general science prerequisites for an engineering major, and then, in two years at the engineering college, fulfills the remaining engineering requirements. Upon satisfactory completion of all coursework at Saint Vincent College and recommendation by the Mathematics Department, students are guaranteed of acceptance at Pennsylvania State University. Saint Vincent College also has formal agreements with The University of Pittsburgh and The Catholic University of America. Under these programs The University of Pittsburgh and The Catholic University of America each will admit up to eight qualified students from Saint Vincent College per year. At The University of Pittsburgh some departments may require Summer Term attendance prior to the student's first fall term at Pitt and/or an additional term or year of course work. Upon recommendation by the Mathematics Department, students have also been accepted at such schools as Boston University, Carnegie-Mellon University, M.I.T., University of Detroit, Drexel University and Lehigh University.

Under this program the student receives two degrees: a Bachelor of Arts degree from Saint Vincent College and a Bachelor of Science degree in the appropriate branch of engineering from the engineering college. Students in the 3-2 engineering program may graduate from Saint Vincent College after successful completion of 45 credits from their engineering school excluding co-ops. No grade below a full C is transferable to an engineering school.

See requirements under Mathematics Department.

# English

Dennis D. McDaniel, Chairperson  
Fr. Wulfstan Clough; O.S.B., Gloria Kerr; Sara Lindey,  
Michelle Gil-Montero; William C. Snyder; Richard D. Wissolik

Adjunct Faculty: Lea Delcoco-Fridley; James Pietrzak;  
Peggy Smith

Professor Emeritus: Ronald E. Tranquilla

The English Department at Saint Vincent College provides an atmosphere and a setting for professors and students to continue the 2500-year-old conversation about text, language, creativity, and imagination. With literature at the center of the conversation, students pursue focused intra-textual reading and apply wider insights that cross national, historical, critical, and disciplinary boundaries. Teachers are devoted to the perennial investigation of beauty and truth, the elasticity and fixity of language, the moral valences of scriptural and non-scriptural books, the complexities of gender, and the quest for self through the ideas of others. As participants in these processes, students think, research and write more fluently about the canon as well as popular culture. Giving direction and resonance to these departmental endeavors are the Benedictine values of community, hospitality, stewardship, and care and concern for the individual. Ultimately, the person graduating with a degree in English will comprehend language both as an instrument and an art, having explored the felicitous tension between creative impulse and traditional form.

## English Learning Objectives:

- Do essays demonstrate an understanding of and a satisfactory realization of the formal qualities of the discourse mode (narrative, critical analysis, comparison, argumentation, casual analysis, literary research essay) that frames the chosen portfolio submission?
- Do writing samples demonstrate that the student has achieved a satisfactory level of mastery (B grade) of the Six Principles of Good Writing?
- Have a major's essays progressed from skill level — relative to his or her classmates — represented essays in the portfolio from his or her freshman year?

## The English Major: 36 credits

Students majoring in English must take a common curriculum of consisting of courses designed for English majors only along with two historical literature surveys. In addition, English majors, guided by their concentration choice (see below), choose two introductory courses and three advanced courses.

### English Major Common Curriculum: 18 credits

English majors must take each of the following courses:

EL 102	Language and Rhetoric*	3
EL 202	Intermediate Writing	3
EL 325	Literary Criticism	3
EL 326	Literary Criticism II	3
EL 400	Senior Seminar	3

\* This course does not count toward the major, but it does count toward graduation.

English majors also must take two (2) of the following surveys; at least one must be a British survey, and at least one must be an American survey:

EL 114	British Literature: Middle Ages to Restoration	3
EL 115	British Literature: Neoclassicism to Modernism	3
EL 131	American Literature: Exploration to Civil War	3
EL 132	American Literature: Civil War to Present	3

In addition to the course requirements, all students must develop a portfolio in which they file a sample of their written work in their concentration-related courses and a self-assessment of their learning each semester. Department faculty will evaluate student work after the Senior Project.

### Introductory Electives: 6 credits

English majors must take two (2) of the following courses, the successful completion of which will also satisfy concentration requirements. Please note that certain concentrations will, to some degree, dictate students' choices.

EL 108	Technical Writing	3
EL 109	Business Communications	3
EL 110	Introduction to Creative Writing	3
EL 111	Green Writing: Literature and the Environment	3
EL 113	Women And Literature	3
EL 114	British Literature: Middle Ages to Restoration	3
EL 115	British Literature: Neoclassicism to Modernism	3
EL 119	History Of The English Language	3
EL 121	Faces Of Battle: War And Peace in Literature and the Arts	3
EL 122	African Studies	3
EL 124	Literature and The Bible	3
EL 125	History and Development Of Science Fiction	3
EL 126	Rock 'n' Roll Criticism	3
EL 127	Shakespeare On Film	3
EL 128	Children's Literature: Fables to 1900	3
EL 129	Young Adult Fiction	3
EL 130	Children's Literature: 1900 to Present	3
EL 131	American Literature: Exploration to Civil War	3
EL 132	American Literature: Civil War to the Present	3
EL 137	American Short Story	3
EL 138	Multi-Ethnic Literatures Of The US	3
EL 139	African American Literature	3
EL 140	Myth	3
EL 142	Creative Writing: Magazine Production	3
EL 143	The Beat Generation	3
EL 144	Reading As Writers: Literary Essay	3
EL 145	Reading As Writers: Poetry	3
EL 146	Critical Thinking And Creative Thinking	3
EL 147	Arthurian Literature	3
EL 148	Modern Catholic Literature	3
EL 149	J.R.R. Tolkien	3
EL 151	American Indian Literature	3
EL 152	The Epic	3
EL 153	Satire	3
EL 154	Special Topics in Literature	3
EL 155	Special Topics in Creative Writing	3
EL 156	Special Topics in Professional Writing	3
EL 157	Special Topics in Children's Literature	3

### Advanced Electives: 12 credits

English majors must take four (4) of the following courses, the successful completion of which will also satisfy concentration requirements. At least two of these required Advanced Electives must be a 200-level literature course. One Literature Advanced Elective must be chosen from the following group of courses: EL 210, 211, 212, 213, 214, 216, 218, 261, and 272. The second Literature Advanced Elective must be chosen from the following courses: EL 224, 225, 226, 236, 242, 257, 258, 259, 263, and 272. Please note that certain concentrations will, to some degree, dictate students' choices.

EL 203	Poetry Workshop	3
EL 204	Fiction Workshop	3
EL 208	Pedagogy of Composition	3
EL 210	Classical Greek Poetry & Drama	3
EL 211	Medieval Studies	3
EL 212	Chaucer	3
EL 213	Shakespeare's Histories	3
EL 214	Shakespeare's Comedies/Tragedies	3

EL 216	British Renaissance Literature	3
EL 218	Eighteenth-Century Literature	3
EL 224	The Romantic Age	3
EL 225	The Victorians	3
EL 226	British Modernism	3
EL 236	Modern European Literature	3
EL 242	American Renaissance	3
EL 244	Creative Nonfiction Workshop	3
EL 252	Creative Writing: Literary Translation	3
EL 257	Sentimental Politics: American Women Writers of the Nineteenth Century	3
EL 258	American Modernism	3
EL 259	Critical Approaches to Children's Literature	3
EL 261	Advanced Studies in Literature	3
EL 264	Advanced Studies in Creative Writing	3
EL 266	Advanced Studies in Professional Writing	3
EL 272	Advanced Studies in Children's Literature	3

### Concentration Requirements:

The English Department provides opportunities for students to concentrate their studies toward career development and graduate and professional study. English majors must declare a concentration by the end of their first year. Students who do not declare a concentration by the end of their first year will have a literature concentration by default. A student's concentration determines specific choices of lower and upper-level courses as well as the nature of that student's senior project.

#### *Children's Literature Concentration*

The Children's Literature concentration invites majors to focus attention on books written primarily for younger readers. This concentration is well suited to students who are interested in early learning. The following courses fulfill the Introductory Elective requirement of the English major:

EL 129	Young Adult Fiction
EL 128	Children's Literature: Fables to 1900
or	
EL 130	Children's Literature: 1900 to Present

*(Secondary Education students intending to double-concentrate must substitute another stipulated Children's Literature course for EL 129 Young Adult Fiction.)*

This course fulfills one of the three Advanced Electives required by the English major:

EL 259	Critical Approaches to Children's Literature
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#### *Creative Writing Concentration*

The Creative Writing Concentration is for students interested in writing fiction, poetry and nonfiction. The Concentration encourages students to develop their craft in a genre of choice, in preparation for graduate study in creative writing and related fields. It builds from the English Major's literature foundation by promoting earnest consideration of contemporary writing and the current conversations informing literary art. The following courses fulfill the Introductory Elective requirement for the English major:

EL 110	Introduction To Creative Writing
EL 146	Critical Thinking And Creative Thinking
or	
EL 142	Creative Writing: Magazine Production

As one of the required Advanced Electives, Creative Writing students must complete one of the following, determined by that student's Senior Project:

EL 203	Poetry Workshop
EL 204	Fiction Workshop
EL 244	Creative Nonfiction Workshop

#### *Literature Concentration*

The Literature Concentration has a traditional base, with an emphasis on the connections of literature to history and philosophy, and with intensive study of literary elements such as irony, symbolism, satire, comedy and tragedy. However, ample opportunity is provided to investigate the

relation of literature and critical applications to special topics and themes, to interdisciplinary affiliations, and to contemporary events and ideas. Students interested in graduate programs in focused literary fields—such as scholarship or college teaching—would find this concentration most appropriate. To concentrate in Literature, students will take one less Introductory Elective in Literature, and one additional Advanced Elective in Literature, equaling five Advanced Electives in English in all — four of which must be Literature Advanced Electives.

#### *Professional Writing Concentration*

The Professional Writing Concentration prepares English Majors for careers in Technical Writing, Grant Writing, Editing, Documentation Manual Writing, and Corporate Communications. This concentration consists of stipulated major requirements and electives that will give students a background in professional written discourse, design, electronic media, and publishing. In addition, English majors concentrating in Professional Writing will be encouraged to secure a professional writing internship during the junior or senior year.

EL 108 Technical Writing

EL 109 Business Communications

Professional Writing students also must complete one of the following, which will count as one of their three required Advanced Electives:

EL 142 Creative Writing: Magazine Production

EL 144 Reading As Writers: Literary Essay

EL 156 Special Topics

or

EL 266 Advanced Studies in Professional Writing

#### *English Certification*

The English Certification Concentration is carefully designed through close collaboration between the English and Education Departments at SVC, and is aligned with the requirements set by the Pennsylvania Department of Education. The course sequence emphasizes skill in reading and writing, along with abilities in research and interpretation demanded in the literature classes. Secondary Education students must take the following Introductory Electives:

EL 119 History Of The English Language

EL 129 Young Adult Fiction

English Certification students must also take one of the following Shakespeare courses:

EL 127 Shakespeare On Film

EL 213 Shakespeare's Histories

EL 214 Shakespeare's Comedies/Tragedies

The two remaining Advanced Electives must be advanced electives in Literature.

Along with English courses, English majors seeking English certification must take the following courses, amounting to an additional 37 credits: Psychology courses: PY 115, PY 214, PY 290

Education courses: ED 100, ED 101, ED 205, ED 220, ED 301, ED 400, ED 410, ED 411.

Mathematics course: MA 102 (does not fulfill core)

#### **Cooperative program with Duquesne Law School**

This program allows majors to earn their bachelor's degree and Juris Doctor degree in six years. In this program, qualified students who complete their first three years of study at Saint Vincent, fulfilling the Core Curriculum requirements and the requirements for the major, may transfer into the Law program and complete the requirements for the Juris Doctor in three years. For details, see the explanation of this program in the Pre-Law section of the *Bulletin*.

#### **Minor in English: 18 credits**

EL 102 Language and Rhetoric 3

EL 325 or 326 Literary Criticism I or II 3

EL 114 British Literature: Middle Ages to Restoration 3

or

EL 115 British Literature: Neoclassicism to Modernism 3

EL 131 American Literature: Exploration to Civil War 3

or

EL 132 American Literature: Civil War to Present 3

EL — Any 2 Advanced courses (200 level)

#### **Minor in Children's Literature: 18 credits**

The Children's Literature Minor at Saint Vincent College invites students to combine courses from many areas, to explore a wide range of topics from various disciplines, and to complement their academic aspirations. English majors are ineligible for the minor, but may choose children's literature as their area of concentration within the English major. Centered on exploring children's literature, the minor emphasizes many aspects of the reading, writing, and teaching of texts for age-specific audiences.

#### **Required courses: 12 credits (4 courses)**

Children's Literature minors must take these courses:

EL 129 Young Adult Fiction

EL 128 Children's Literature: Fables to 1900

or

EL 130 Children's Literature: 1900 to Present

EL 259 Critical Approaches to Children's Literature

Also, Children's Literature minors must take one (1) of the following:

PY 212 Child Development

PY 214 Adolescent Development

#### **Elective courses: 6 credits**

Finally, Children's Literature minors must choose two of the following:

EL 119 History Of The English Language

EL 125 History and Development Of Science Fiction

EL 140 Myth

EL 146 Critical Thinking And Creative Thinking

EL 147 Arthurian Literature

EL 235 The Epic

EL 325 Literary Criticism

EL 326 Literary Criticism II

#### **Typical First-Year Schedule:**

##### *Fall Semester*

EL 102 Language and Rhetoric 3

EL 114, 115, 131, or 132 British or American Literature 3

Classical or Modern Language 3/4

Mathematics or Natural Science 3/4

100-level History 3

All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

##### *Spring Semester*

TH 119 First Theology 3

Classical or Modern Language 3/4

Mathematics or Natural Science 3/4

PL 101 1st Philosophy 3

EL 114, 115, 131, or 132 British or American Literature 3



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## Course Descriptions

The Department attempts to offer each course listed below on a regular basis. Courses required by the English Major or a program offered by another department, or for Secondary Education certification, are offered once or twice a year. Other courses are offered every other year.

### EL 102 Language and Rhetoric

This first-year writing course develops students' ability to think clearly and logically and to apply principles of organization, purpose, coherence, support, clarity, and insight to their writing. Students work independently to produce a composition portfolio by the end of the course and maintain close contact with the instructor throughout the semester. Students draft and revise their papers predominantly on a computerized writing network. Writing assignments include a journal and four formal essays. This course is required of all students for the Core Curriculum. Prerequisite: Initial placement by the English Department or successful completion of EL 099. Three credits. This course does not count toward the English major.

### EL 108 Technical Writing

This course acquaints students with technical and business writing in a work setting. Each class session includes readings in problems in English usage and expression, and practice in specific skills—writing clear technical sentences, composing memos and letters, paraphrasing, organizing reports. Prerequisite: Completion of EL 102 and at least sophomore standing. Three credits.

### EL 109 Business Communications

In this course, students perform various communication tasks that they may encounter in organizations and professions. Working in simulated corporations, students write short reports and letters, engage in a job campaign, and deliver oral presentations that employ communication technology. At the semester's end, students submit a portfolio of revised written work. Discussions of key business communication principles are informed by the reading of classic works of nonfiction and fiction. Prerequisite: Completion of EL 102 and at least sophomore standing. Three credits.

### EL 110 Introduction to Creative Writing

This course introduces the fundamentals of creative writing and the creative process in three genres: poetry, fiction, and creative nonfiction. Students read contemporary works in these genres to explore elements of craft, an exploration extended into weekly writing assignments. Course work also includes frequent in-class writing prompts and a short reading presentation. In the workshop element of the course, students give and receive peer feedback on writing assignments, as a means of honing a vocabulary for critical commentary. Students are required to produce a final portfolio of revised work representing all three genres. This course serves as a prerequisite to advanced courses in Creative Writing and may not be taken after students have taken advanced courses in Creative Writing. Three credits.

### EL 111 Green Writing: Literature and the Environment

Green Writing, or, literature about the environment, is defined by its attempt to connect nature (in the widest sense of the word) with human experience. The interdisciplinary text presents ten case studies presenting these large topical issues: conservation, biodiversity, global sustainability, biotechnical manipulation, climate shock, deforestation, urbanization, and wilderness, including texts by traditional nature writers such as Thoreau, Muir, Leopold, and Carson. Short essays by a wide range of scientists, economists, philosophers, environmentalists, and figures engaged in the

politically charged conversation about environmental policies and beliefs interconnect with these issues. Discussion-oriented class; readings include a multitude of short works; assignments include notebook, quizzes, short orals, term paper, and class participation. Three credits.

### EL 113 Women and Literature

This course examines the various roles assumed by women, both as characters and authors, to issues such as the possibility of a particularly female aesthetic and literary tradition. Readings may include Rowson, Jacobs, Austen, Woolf, Mukerjee, Morrison, among other writers, and consider texts across space, time, class, and ethnicity. Discussion-oriented class; requirements include weekly papers or reading reflections, quizzes, group presentation, final, and class discussion. Three credits.

### EL 114 British Literature: Middle Ages to Restoration

This introductory-level course surveys British literature from Anglo-Saxon times until the restoration of the monarchy in 1660. Students will read representative selections from several genres from the pre-Medieval, Medieval, and Renaissance periods, including epic and lyric poetry, ballads, dramas, and prose works. Stress will be placed on the accomplishments of Chaucer, Shakespeare, and Milton, as well as other notable writers. Some literary history will provide a context within which to examine the development of English literature during these periods. Students must take two-to-three exams and write two-to-three papers. Three credits.

### EL 115 British Literature: Neoclassicism to Modernism

This introductory-level course covers major literary works in Britain from the Restoration of the Crown to the 20th century. All major genres within the time span—drama, the verse-essay, the novel, the short story and lyric poetry—are explored and examined as reflections of historical and aesthetic contexts. Authors covered include Dryden, Pope, Swift, Johnson, Wordsworth, Coleridge, Keats, Austen, Tennyson, Hopkins, the Brownings, and Hardy. Students acquire skills in reading the various kinds of literature; they respond to questions and prompts on a weekly basis. Students must take two-to-three exams and write two-to-three papers. Three credits.

### EL 119 History of the English Language

This course examines the history of English from a technical standpoint and also from a political, social, and even religious perspective. Students begin with an overview of linguistic theory. Then, concentrating on such linguistic phenomena as Grimm's Law and the Great Vowel Shift, they examine how Anglo-Saxon (Old English) became middle English, and how that in turn evolved into modern English. They also analyze how historical, psychological, and social forces have shaped modern English and what forces may shape it in the future. Student progress is measured by periodic quizzes and in-class exercises, two hourly exams, and a comprehensive final exam. Students have the option of substituting an oral presentation or a major paper for the second hourly exam. This course will also satisfy the interdisciplinary requirement for English majors; it is required of all English majors seeking secondary certification to teach English. Three credits.

### EL 121 Faces of Battle: War and Peace in History, Literature and the Arts

This course studies the changing personae of men and women who have been involved in war and peace-making from primitive warfare to Vietnam. Historical concentration may vary, e.g., Wars on American Soil, World War II, etc. Participants read from the works of Xenophon, Pliny, Caesar, the Bible, Shakespeare, Whitman, Crane, Bierce, Hemingway, Owen, Mailer, Jones, and others. Participants will become familiar with "pro" and "anti-war" materials, and the historical changes in attitudes between the



heroic/romantic ideal to the critically realistic. Through regular lectures, discussions, audio/visual materials, Power Point presentations, and the insights of invited veterans who have developed their oral histories with the Saint Vincent College Center for Northern Appalachian Studies/Oral History Program, participants become familiar with the development of the doctrine, tactics, strategy, and technology of war, the changing face of the hero, the roots of archetypal motifs, the treatment of human virtue and vice, the role of women, and other aspects of the literature of war. Participants maintain a journal, take quizzes, and prepare a major, final project. Three credits.

#### **EL 122 African Studies**

This course investigates elements of African history from earliest times to the partition of the continent by European powers in the 1890s and prepares participants to understand developments in Africa in the twentieth century. Participants study African pre-history, geography, language groups, civilizations of the bow, clearings, granaries, towns, cities and kingdoms, the three major ages of exploration, and the slave trade. Audio/visual materials and Power Point presentations supplement lectures and discussions. Course requirements include a journal, scheduled quizzes, and midterm and final exams. Three credits.

#### **EL 124 Literature and the Bible**

In this course, students examine the Bible as a work of literature, both in and of itself and in the ways it has influenced other writers. Students explore the traditions behind the Bible, as well as the different literary genres it contains: myth, historical chronicle, heroic saga, and lyric poetry, for example. They also look at selected works of literature that draw upon or reinterpret the Bible. Grades will be based on a midterm and a final exam, one major paper and two or three essays, occasional quizzes, and class participation. Three credits.

#### **EL 125 The History and Development of Science Fiction**

This course examines science fiction as a genre of literature, from its beginnings in the 19th century through the present day. After a look at the mythic roots of science fiction, students read classic works by Jules Verne and H. G. Wells, and proceed to the present with representative works by writers like Arthur C. Clarke, Robert Heinlein, and Ursula K. LeGuin. Along the way they analyze recurring motifs, themes, and concerns; they also examine why this genre holds such fascination for so many people, and how it functions as a kind of twentieth century mythology. Student progress will be evaluated through a midterm and a final exam, a major paper or major project, occasional quizzes and homework assignments, and class participation. Three credits.

#### **EL 126 Rock 'n' Roll Criticism**

In this course, students examine the history, artistry, and cultural impact of contemporary popular music by reading the work of critics from academia, mainstream music journals, and the underground press. Students read about and discuss such issues as genre, audience, image, aesthetic value, history, race, and gender. Also, students examine and learn how to analyze the prose style of such popular music critics as Cohn, Marcus, Christgau, Bangs, and Tate. Finally, students develop their ability to write criticism by learning how to listen critically, establish aesthetic criteria, and apply them in written pieces. Journal writing and a midterm and final are required. Three credits

#### **EL 127 Shakespeare on Film**

In this course, students read and discuss several key Shakespeare plays and screen a variety of film adaptations from such directors as Kurosawa, Jarman, Zeffirelli, and Olivier. Students will learn how to watch films critically, to understand various approaches to adapting a written text to film, and to express

their discoveries effectively through discussion and writing. This course requires a reading and screening journal, as well as a midterm and final exam. Three credits

#### **EL 128 Children's Literature: Fables to 1900**

This course explores the cultural construction of childhood and children's literature from classical antiquity to 1900. Student move from medieval children's literature to Puritan children's literature, rationalist children's literature, and romantic children's literature. Readings include literary texts, secondary essays, and two nineteenth century novels. Course requirements include reading lots, reading quizzes, four or five short papers, final exam, and class discussion. Three credits.

#### **EL 129 Young Adult Fiction**

This course provides the opportunity for students preparing to teach high school English to review recent trends in young adult literature. Class members read and discuss a selection of ten contemporary young adult novels suitable for teaching in the middle school or high school classroom. Text selections may vary but include authors like Cormier, Duncan, George, Patterson, and Peck. Course requirements include two short essays, a reading journal, a collaborative project, two tests, a final exam, and class participation. This course is required of all students seeking secondary teaching certification in English. Three credits.

#### **EL 130 Children's Literature: 1900 to Present**

In this course, students will have the opportunity to review both historical and contemporary literature for children. Class members will read and discuss a selection of at least 12 different authors of literature for children from fairy tales to recently published works. Sub-genres under study include, but are not limited to, the picture book, realistic fiction, nonfiction, historical fiction, and fantasy. Course requirements include two short essays, reading quizzes, two exams, and class discussion. Three credits.

#### **EL 131 American Literature: Exploration to Civil War**

This course explores the evolution of literary genres, themes, and forms from exploration to the Civil War. From explorers' letters to colonists' sermons, diaries, and poetry to politicians' manifestos of our young republic, and into the slave narratives and rich poetry and fiction of the American Renaissance, this survey course charts the emergence of our national literature. In this discussion-oriented class, readings include a multitude of short works and one novel. Students must take two-to-three exams and write two-to-three papers. Three credits.

#### **EL 132 American Literature: Civil War to Present**

This course explores the evolution of literary genres, themes, and forms from the post-Civil War era through the present. Moving from realism and naturalism through modernism and postmodernism to contemporary literature, this course explores the poetry, fiction, memoirs, and critical poetics essays that help define and develop the American literary tradition. In this discussion-oriented class, readings include a multitude of short works. Students must take two-to-three exams and write two-to-three papers. Three credits.

#### **EL 137 American Short Story**

This course covers the form and evolution of the short story and short story collection as invented and mastered by American authors from Poe to Updike. Symbolism, Nationalism, Realism, Naturalism, Primitivism, and Modernism provide contexts for ways of understanding writers such as Poe, Hawthorne, Melville, Crane, Cather, Hemingway, Anderson, Steinbeck, Fitzgerald, Faulkner, Bierce, Ellison, and Updike. The typical class includes lecture and discussion. Students take three quizzes, a midterm, and a final, and to participate in group and class discussion. Three credits.

### **EL 138 Multi-Ethnic Literature of the United States**

This course will engage questions of national literature as expressed, developed, and critiqued in a multicultural arena. The readings for this class cannot hope to be representative of the emerging multicultural canon; nonetheless, we will cover a variety of different ethnicities represented in American authors and the themes of their literature. Discussion-oriented class, readings include approximately 10 books, assignments include at least two short papers, reading, quizzes, group presentation, final, and class participation. Three credits.

### **EL 139 African American Literature**

This course studies the major themes and artistic innovations in African-Americans literature from the American diaspora in the 17th century to the present. Moving from slave narratives, songs, and early American documents through realism and naturalism, into the Harlem or New Negro Renaissance, through the Black Arts Movement, and arriving at contemporary literature, this course provides an historic and literary overview of African American literary production. Discussion-oriented class. Course requirements include short unit response papers, a group presentation, three quizzes, final exam, and class participation. Three credits.

### **EL 140 Myth**

This course explores the idea of myth and mythic traditions in history, literature, the arts, and popular culture. Participants read selected works of traditional literature, together with Genesis, Revelation, the scriptures of other religions, and appropriate selections from Freud, Jung, Neumann, Eliade, van Gennep, Meade, Rank, Campbell, and others. Audio/visual materials and Power Point presentations supplement lectures and discussions. Participants maintain a journal, take scheduled quizzes and a mid-term and final exam. Three credits.

### **EL 142 Creative Writing: Magazine Production**

In this hands-on production class, students will produce Generation magazine, the school's annual publication of student poetry, fiction, nonfiction, and art. The course offers students the opportunity to sharpen their evaluative and group decision-making strategies. Participants learn various formatting, editing, and proofreading techniques to be put into practice. Students will also be assigned individual editorial tasks to complete. Other topics to be covered at sessions: how to market and distribute a student journal, how to develop a web presentation for the magazine, how to work effectively towards deadlines, and where/how to submit one's work as a student and beyond. In order to receive credit for this course, a student must actively participate in the entire magazine-building process: the class "assignment." Prerequisite: permission of the department. Course fulfills the English internship requirement. Three credits; may be repeated for one credit by enrolling in EL 142A.

### **EL 143 The Beat Generation**

This course explores the major poetry and prose of Kerouac, Ginsberg, Burroughs, Snyder, and others within a framework of post-WWII history, art, literature, and music. Students write a series of short papers, take a midterm and final exam, deliver oral presentations, and submit a course project, which may consist of creative work. Three credits.

### **EL 144 Reading as Writers: The Literary Essay**

This course introduces students to the literary essay genre in a hands-on exploration of its defining techniques and conventions. Viewing the genre through a lens that is decidedly as writerly as critical, students consider its inherent hybridism and flexibility by engaging its diverse rhetorical approaches and forms creatively as well as critically. Approaches to essays will include in-class creative writing and various methods of informal inquiry. Readings

will sweep a broad selection of essays from classic to contemporary, with an emphasis on the contemporary. Use of audio/visual materials will often supplement discussions. The grade is based on weekly reading responses, two exams, and one literary essay, in addition to participation in group and class discussions. Three credits.

### **EL 145 Reading as Writers: Poetry**

This course introduces students to poetry and poetics in a hands-on exploration of poetic techniques and conventions. Viewing the genre through a lens that is decidedly as writerly as critical, students entertain a range of ways to read and respond to poems. Approaches will include in-class creative writing, commenting on comparative translations, and considering relationships to other art forms, among others. Readings will sweep a broad selection of poetic innovators in English and in translation from Russian, French, German, Spanish, and Italian. Emphasis is placed on the poem as a form of inquiry, enabling varied forms of meaningful response. Use of audio/visual materials will often supplement discussions. The grade is based on weekly reading responses, five short papers, a group project, and one exam, in addition to participation in group and class discussions. Three credits.

### **EL 146 Critical Thinking and Creative Thinking**

This course considers the relationship between thought and discovery, between idea and project, between problem-solving and inspiration. Guided readings in philosophy, poetry, fiction, and critical theory, viewings of art work and films, and lessons in logic, types of statements, illusions, and rhetorical systems are complemented by writing assignments that encourage students to create, resolve, and synthesize a variety of "texts." The role of linear and non-linear thought, rational and irrational thinking, opinion formulation, and perceptual process are topics for oral presentations made by students, who will engage practical, political, and ethical dilemmas. Grading is based on quizzes, a presentation project including a written document, and a final exam. Three credits.

### **EL 147 Arthurian Literature**

Probably no legend has influenced modern culture more than that of King Arthur. The ideals represented by him and his knights continue to inspire after over 1,000 years. This intermediate-level course traces the history and development of this compelling myth, from a vague reference in an obscure chronicle, through the medieval French romances and Malory's *Morte d'Arthur*, to modern interpretations of the legend by such writers as T. H. White and Marion Zimmer Bradley. Students will examine the figure of Arthur and what he has represented to different cultures, and what he has come to mean to us. Student achievement will be measured through a midterm and a final exam, one major paper, occasional quizzes and assignments, and class participation. Three credits.

### **EL 148 Modern Catholic Literature**

This course will examine literature by Catholic authors from the mid-nineteenth century to the present day. Students will read and discuss works by such writers as Gerard Manley Hopkins, G. K. Chesterton, Dorothy Day, Flannery O'Connor, and Shusaku Endo, among others, and so explore the ways that the writers' faith affects their imaginations, their views of moral conflict and of character, and their spirituality. The readings and the specific focus of the course may vary from semester to semester. A midterm, a final, a research paper, quizzes and other short assignments, and class participation. Three credits.

### **EL 149 J.R.R. Tolkien**

In this class we will study the life and works of J. R. R. Tolkien, one of the 20th century's most popular authors. We will begin with a look at Tolkien's life and then examine some of his early work, as well as classic works from Old Norse, Anglo-Saxon, and other sources that influenced him. Our main focus will be on his master-

piece, *The Lord of the Rings*. Through an examination of this work, as well as Tolkien's philosophy of literature, we will see how it develops his concepts of myth, heroism, honor, and other themes. One final, some short assignments, class participation, and two of the following: a midterm, a term paper or creative work, or an oral report. Three credits.

#### **EL 151 American Indian Literature**

This course studies the varieties of oral and written work created by Americans Indians. The course begins with transcriptions from the oral tradition, including stories, songs, prayers, and orations, and continues with written works in a variety of genres, including poetry, short stories, and novels. Readings may include works from Winnemucca, Zitkala-Sa, Black Elk, Momaday, Alexi, Silko, Erdrich, Sarris, Ortiz, Harjo, and Treuer. Discussion-oriented class. Readings may include shorter works along with two collections of short stories, selected poetry, and three novels; assignments include a report, group presentation, quizzes, take-home final, and class participation. Three credits.

#### **EL 152 The Epic**

Participants in this course will study the form of the Epic and the influence the form has had on literature, culture, and society. Representative authors and texts include Homer (*Iliad* and *Odyssey*), the Old English *Beowulf*, Dante (*Divine Comedy*), Arthurian Romance (*Percival*), Milton (*Paradise Lost*). Participants will also examine how modern literary artists have employed the epic theme and hero in their works, e.g., Whitman and Joyce. Participants are required to keep a course journal, a major portion of which will be devoted to essays developed in light of questions prepared by the professor. Lectures and discussions will be supported by PowerPoint presentations, film, and electronic research. Course requirements also include quizzes, mid-term exam, and final exam. Three credits.

#### **EL 153 Satire**

This course offers students unique opportunities for more advanced work in the study of the techniques, themes, and rhetoric of Satire. Participants study the works of Greek and Roman satirists (Horace and Juvenal), satirists of the Neoclassic period (Swift and Pope) and modern satiric works (Twain, Flannery O'Connor, Welty), including material from film, television, and other forms of popular culture. Assignments include a course journal, reading quizzes, and a midterm and final exam. Three credits.

#### **EL 154 Special Topics in Literature**

This course offers students unique opportunity for more focused study of literary periods, figures, genres, creative writing modes, and interdisciplinary topics. Topics vary from semester to semester, and students should consult the registration booklet for specific descriptions of courses offered. Three credits.

#### **EL 155 Special Topics in Creative Writing**

This course offers students unique opportunity for more focused study of topics in Creative Writing. Topics vary from semester to semester, and students should consult the registration booklet for specific descriptions of courses offered. Three credits.

#### **EL 156 Special Topics in Professional Writing**

This course offers students unique opportunity for more focused study of topics and methodologies in Professional Writing. Topics vary from semester to semester, and students should consult the registration booklet for specific descriptions of courses offered. Three credits.

#### **EL 157 Special Topics in Children's Literature**

This course offers students unique opportunity for more focused study of topics in Children's Literature. Topics vary from semester to semester, and students should consult the registration booklet

for specific descriptions of courses offered. Three credits.

#### **EL 202 Intermediate Writing**

This upper-level composition course focuses on pre-professional training and practice in all rhetorical modes, especially in exposition and argumentation. A process methodology adheres to the Six Principles of Good Writing while emphasizing invention, development, citation, revision, grammar, and logic. The ultimate goal of the course is for each student to produce an essay magazine consisting of three polished essays — the outcome of three cycles, which contain a variety of focused writing projects. Six quizzes assess mastery of micro-skills. This course has no pass-fail option, does not provide remediation, and has two prerequisites — completion of EL 102 and at least 32 credits. (This description also applies to EL 208 Pedagogy of Composition.) Three credits.

#### **EL 203 Poetry Workshop**

This advanced workshop deepens into elements of poetic craft while exploring the spectrum of contemporary poetics and the forces informing it. Students read both short and book-length works by contemporary poets as a basis for exploring technical conventions and innovations, in relation to a broader poetics. Extensive in-class writing and weekly writing assignments encourage students to entertain experimental approaches to their writing and engage the problems and questions preoccupying contemporary poetry. Assignments will be discussed in a workshop setting, where students will sharpen their ability to revise effectively as well as respond meaningfully to poems. Students produce a portfolio of revised poems at the end of the semester. Prerequisite: EL 110 or permission of instructor. Three credits

#### **EL 204 Fiction Workshop**

This advanced workshop explores the craft of literary short fiction. Students read contemporary short stories as models of techniques and approaches to material, as well as other technical readings addressing elements of craft, and write their own fiction. Emphasis is on writing improvement and effective revision through an increasing awareness of the dynamics of the genre and by cultivating an understanding of contemporary idioms and uses of the imagination. Assignments will be discussed in a workshop setting, where students will sharpen their ability to revise effectively as well as respond meaningfully to peer work. Students produce a portfolio of revised stories at the end of the semester. Prerequisite: EL 110 or permission of instructor. Three credits

#### **EL 208 Pedagogy of Composition**

(See the description for EL 202 Intermediate Writing)

#### **EL 210 Classical Greek Poetry and Drama**

The literature and culture of ancient Greece has influenced modern culture greatly. In this upper-level course students will study representative works from this time and discuss this influence. Readings will include the epic poetry of Homer, the lyrics of Sappho and Archilochus, and the drama of Aeschylus, Sophocles, Euripides and Aristophanes. Students will also examine the critical theories of Plato and Aristotle and how these classical thinkers have shaped our thought. The grade will be based on a midterm, a final exam, a major paper and a few short essays, quizzes, and class participation. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

#### **EL 211 Medieval Studies**

This course investigates three major areas of Medieval life and literature, e.g., the form of Romance, the theme of Courtly Love, and the technique of Allegory. Participants read selected works of Old English Literature, selections from Chaucer's *Canterbury Tales*, and Dante's *Inferno*, in addition to selected lyrics, ballads, drama, and other works. Participants especially work toward a

synthesis of ideas and an understanding of the progress and development of early literary form and technique in later periods in literature. Course requirements include a journal, scheduled quizzes, a mid-term and final exam. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

#### **EL 212 Chaucer**

The life and representative works of Geoffrey Chaucer are the subjects of this upper-level course. Our main concentration will be on his *Canterbury Tales*, with selections from some of Chaucer's other poetry; we will also examine the Middle English and Continental traditions that influenced it. We will read Chaucer's works in Middle English and spend some time studying its structure and pronunciation; part of the grade, in fact, will be based on students' ability to read and interpret the Middle English of Chaucer. A midterm, a final exam, a major paper, an oral report, some quizzes and short assignments, and class participation comprise the remainder of the grade. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

#### **EL 213 Shakespeare's Histories**

This course comprises a study of Shakespeare's history plays. Students examine the sources and influences for the plays such as Latin history, medieval chronicle, contemporary English drama, and the political, philosophical, and social writings of the age. The major emphasis of the course is on the plays themselves, including both the Roman and the English history plays. Students thus explore theme, character, setting, language, style, and tone, noting what is characteristic of the Renaissance as well as what is distinctive of Shakespeare. Course requirements include one major paper, a midterm, a final examination, quizzes, and class participation. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

#### **EL 214 Shakespeare's Comedies and Tragedies**

In this course, students consider the sources and influences for these plays as well as the immediate historical and philosophical context in which they were written. The major emphasis of the course is on the plays themselves, tracing the progress of Shakespeare's comedy and tragedy from its Elizabethan beginnings to its Jacobean conclusion. Students explore theme, character, setting, language, style, and tone, noting what is characteristic of the Renaissance as well as what is distinctive of Shakespeare. Course requirements include a midterm and final exam, an oral report on a scholarly article, and a research paper. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

#### **EL 216 British Renaissance Literature**

This course closely reads the texts of the major British writers of the 16th and early 17th centuries, including Sidney, Spenser, Donne, Jonson, and Milton. Though the course stresses the analysis of primary texts, it also locates these texts within the religious, political, and philosophical crises that distinguish the early modern era. The course familiarizes students with the criticism of these writers and their work by requiring an oral presentation and a research paper. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

#### **EL 218 Eighteenth-Century Literature**

This course studies British literature and culture of the "long" 18th century, 1660-1789. Students study the intellectual, cultural, and political history of the period and learn its major literary trends and types, including the novel, satire, the verse essay, and the comedy of manners. Readings include nonliterary and noncanonical works, but concentrate on the major achievements of Dryden,

Defoe, Swift, Pope, Restoration dramatists, and women writers. Students write short essays, take a midterm and final exam, deliver oral presentations, and submit a research essay. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

#### **EL 224 The Romantic Age**

While Romanticism in Europe enjoyed its high period in the first half of the nineteenth century, this course examines romanticism as a cultural influence with principles that predate 1798, and which reach beyond 1840. While the canonical Romantic writers—Blake, Wordsworth, Coleridge, Shelley and Keats—occupy center stage, thinkers and ideas influencing them and modifying their work are given significant attention, especially neo-classicism, travel literature, the French Revolution, feminism, landscape painters. The course begins with lecture and moves to seminar. Course requirements include a midterm, major project, and a final exam. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

#### **EL 225 The Victorian Era**

Through study of fiction, poetry, and painting, as well as some texts from the sciences, social sciences, and philosophy, this literature course explores—through lecture and especially discussion—the world view of British writers such as Tennyson, Robert and Elizabeth Barrett Browning, the Rossettis, Arnold, the Brontës, Dickens, Hardy, and Wilde, during the reign of Queen Victoria, caught in the struggle to find order during the collapse of Romanticism and the slow birth of Modernism. The course requires participation in class discussion, some in-class writing, two minor projects (an annotated bibliography and an exercise in literary theory), an essay (a critical review), a research essay, a midterm essay exam, and a final essay exam. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

#### **EL 226 British Modernism**

This course investigates British literature from 1870 to 1920, and emphasizes the literary movements of Naturalism, Symbolism and Stream of Consciousness. Participants read Hardy, Conrad, Joyce, Hopkins, Yeats and Eliot, in addition to selections of criticism. Participants pay close attention to the historical, economic, scientific and social background of the period. Audio/visual materials and Power Point presentations supplement lectures and discussions. Course requirements include a journal, scheduled quizzes, mid-term and final examinations. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

#### **EL 236 Modern European Literature**

This course studies the major literature, art, and film of the modern and contemporary periods. Students read Dostoevsky, the French Symbolists, Kafka, Proust, Beckett, Breton, Calvino, and others and examine the connections between philosophical and cultural movements. The course requires a series of short essays, a midterm and final examination, oral presentations, and a research essay. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

#### **EL 242 American Renaissance**

This course centers on the mid-nineteenth century literary production that constitutes the American Renaissance, an explosion of touchstone texts that defined our nation, reflected its own time, and forecast our own. Readings may include Emerson, Thoreau, Hawthorne, Melville, Stowe, Fern, Whitman, and Dickinson. Discussion-oriented class, readings include approximately four



novels, two poetry oeuvres, and 10 critical essays, assignments include weekly papers and essay reading rubrics, researched term paper, and class participation. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

#### **EL 244 Creative Nonfiction Workshop**

This advanced workshop explores the craft of the creative nonfiction essay. Reading contemporary essays, students will explore the inherent hybridism of the genre and experiment with its range and flexibility. Emphasis is on writing improvement and effective revision through increasing awareness of diverse rhetorical strategies and approaches to material. Extensive in-class writing and weekly writing assignments encourage students to respond experimentally to the ideas presented in discussion. Assignments will be discussed in a workshop setting, where students will sharpen their ability to revise effectively as well as their ability to respond meaningfully to peer work. Students produce a portfolio of revised essays at the end of the semester. Prerequisite: English 110 or permission of instructor. Three credits.

#### **EL 252 Literary Translation Workshop**

This advanced workshop introduces students to literary translation studies. Readings will expose students to various theoretical and practical models for approaching literary translation, toward the formation of an individual theory and praxis. Readings will cover aspects of the cultural, aesthetic, and linguistic challenges of literary translation and include essays by Benjamin, Pound, Nabokov, Borges, Venuti, Derrida, and others. The material of this course will urge students to confront and question their individual expectations and preconceptions as readers and writers. The emphasis of the course will be on students' own attempts at literary translation, which will be discussed in a workshop setting. Students must have an intermediate level of proficiency in a foreign language; an advanced level of proficiency is not required. Prerequisite: EL 110 or permission of instructor. Three credits.

#### **EL 256 Sentimental Politics: American Women Writers in the Nineteenth Century**

Centering on the gendered conventions of sentimental literature, this course explores the social reform movements surrounding 19th-century America, including emancipation and women's suffrage. Readings may include work by Harriet Beecher Stowe, Catharine Maria Sedgwick, Fanny Fern, Frances Harper, Harriet Jacobs, Sarah Callahan, among others. Discussion-oriented class, readings include approximately six novels, selected poetry, and 10 critical essays, assignments include weekly papers and essay reading rubrics, researched term paper, and class participation. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

#### **EL 257 American Realism and Naturalism**

This course centers on realism, including psychological realism and regionalism, and moves toward naturalism, encompassing American literature from the Civil War through World War I. Readings may include James, Wharton, Howells, Twain, Jewett, Chestnutt, Hopkins, Bierce, Crane, Norris, Dreiser, and Cather. Discussion-oriented class, readings include approximately six novels, selected poetry, and ten critical essays, assignments include weekly papers and essay reading rubrics, researched term paper, and class participation. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

#### **EL 258 American Modernism**

This course will explore American expressions of Modernism from the turn of the twentieth century to World War II, making room for

a wide variety of voices. Readings may include Chopin, Hurston, Johnson, Hemingway, Fitzgerald, Stein, Faulker, Ellison, and many poets, including Millay, Teasdale, Lowell, H.D., Loy, Williams, Stevens, Frost, Pound, Eliot, McKay, Hughes, among others. Discussion-oriented class, readings include approximately five novels and 10 critical essays, assignments include weekly papers and essay reading rubrics, researched term paper, and class participation. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory course. Three credits.

#### **EL 259 Critical Approaches to Children's Literature**

Critical studies of children's literature draws not only on literary theory but on an interdisciplinary approach to age-specific popular fiction. Employing methodology from American studies, cultural studies, book history, and journalism and mass communication, this course helps students interrogate children's literature and the roles it has played in national and familial identity, social reform, aesthetic movements, and other topics. Discussion-oriented class, readings include approximately five novels and twelve critical essays, assignments include weekly papers and essay reading rubrics, researched term paper, and class participation. Prerequisites: Completion of EL 102 Language and Rhetoric and either EL 128, EL 129 or EL 130. Three credits.

#### **EL 261 Advanced Studies in Early Literature**

This course enables students to more intensively study writers, genres, and interdisciplinary topics from the classical, medieval, and early modern eras. Topics vary, and students should consult the registration booklet for specific descriptions of courses. Prerequisites: Completion of EL 102 Language and Rhetoric and at least on Introductory-level literature course. Three credits.

#### **EL 263 Advanced Study in Modern Literature**

This course enables students to more intensively study writers, genres, and interdisciplinary topics from modern British and European and American literature. Topics vary, and students should consult the registration booklet for specific descriptions of courses. Prerequisites: Completion of EL 102 Language and Rhetoric and at least on Introductory-level literature course. Three credits.

#### **EL 264 Advanced Studies in CreativeWriting**

This course offers students unique opportunity for more intensive study and practice of creative writing. Topics vary from semester to semester, and students should consult the registration booklet for specific descriptions of courses offered. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

#### **EL 266 Advanced Studies in Professional Writing**

This course offers students unique opportunity for more intensive study and practice of Professional Writing. Topics vary from semester to semester, and students should consult the registration booklet for specific descriptions of courses offered. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

#### **EL 272 Advanced Studies in Children's Literature**

This course offers students unique opportunity for more intensive study of children's literature. Topics vary from semester to semester, and students should consult the registration booklet for specific descriptions of courses offered. Prerequisites: Completion of EL 102 Language and Rhetoric and EL 129 or EL 130. Three credits.

#### **EL 310 Junior Seminar**

This course is designed to prepare English majors to complete their Senior Projects. Primarily, this preparation will be a review and practice of skills and knowledge that English majors have



developed in other courses, including their ability to read and analyze primary texts, their ability to generate and shape a topic, their understanding and ability to apply literary theory, and their skills in library research. Students will complete a series of preliminary assignments that will culminate in the submission of a formal proposal for their Senior Project. Three credits.

### **EL 325 Literary Criticism I: Ancient to Modern**

The basic framework for this course is historical, as students read and discuss critical statements from the ancient to the modern periods, beginning with Plato and ending with early twentieth-century critics such as T.S. Eliot and Virginia Woolf. Major influences and ideas that reach across authors and across cultural periods—mimesis, pragmatism, organicism and modernism—provide bases for schools of criticism as well as individual critics. Also, students learn literary criticism as a skill—writing analytically about literature and developing a working understanding of the way the discipline is researched and shared. This intermediate level course requires three essays, a midterm, and a final exam. This course is required of all English majors. Three credits.

### **EL 326 Literary Criticism II: Contemporary Theories**

In this course, English majors and minors survey and practice the literary theories of the 20th and 21st centuries. Beginning with New Criticism, students concentrate on such critical theories of the contemporary period as Structuralism, Deconstruction, Marxism, Feminism, Cultural Studies, Post-Colonial Theory, and Postmodernism. Emphasis, however, will be placed on applied criticism, through three short essays in which students examine text from the perspective of specific critical schools. Along with the three essays students must take midterm and final exams. This course is required of all English majors. This course does not fulfill requirements for the Core. Three credits.

### **EL 350 Independent Study**

In this course, topics of research are chosen and developed by the student with the guidance of the professor directing the study. May be repeated. Prerequisites: completion of EL102 Language and Rhetoric and at least one literature course. Variable credit.

### **EL 400 Senior Project**

This is the capstone course for English majors. In it, senior majors will complete their Senior Projects—papers of 20-30 pages—under the supervision of the course's instructor and a second reader, whom the student writer will select based on that reader's expertise. Students pursue Senior Projects based on their area of concentration: students in Literary Studies, Children's Literature, and Secondary Education will write works of literary criticism; student concentrating in Creative Writing will write collections of fiction, creative non-fiction, or poetry; and students concentrating in Professional Writing will write formal reports, proposals, or other forms of technical documentation. The fundamental requirement of the course is the completion of the project, but students must also submit outlines and drafts, conference regularly with the instructor and second reader, and deliver a public presentation of an excerpt of their projects. Only English majors who have completed EL 310 will be admitted to this course. Three credits.

### **EL 550 English Internship**

In this course, students work in a professional setting in order to extend their learning experience beyond college into the world of work; relevant experiences can take the form of internships, field work, and cooperative programs, particularly in advertising, public relations, journalism, and communications. Students may or may not be paid, depending on the policy of the employer. May be repeated. Variable credit.

## **Environmental Science**

*Caryl L. Fish, Director*

*Cynthia Walter; James Kellam; Tim Kelly; Eugene Torisky;  
Rob Michalow; Gabriel Pellathy; Sara Lindey*

*Adjunct: Angela Belli; Beth Bollinger*

The environmental science program is multidisciplinary in its approach to environmental problems. The philosophy of the program is that environmental problems are best solved through careful scientific investigation within the context of social, political, and ethical structures. To prepare individuals to achieve this goal, the environmental science major is multidisciplinary in its structure. Required coursework in general and advanced science gives students a solid foundation for scientific investigations. Courses in the humanities and social sciences broaden students' perspective and allow them to analyze problems for unique solutions. Students have the opportunity to develop field skills in near-by aquatic and terrestrial ecosystems. This combination of courses and field experience provides students with a broad background to understand environmental problems and a strong scientific approach to find answers to those problems.

The environmental science major has been designed to provide students with the background to pursue careers in the environmental field. Students have the flexibility to focus their studies in a specific area such as biology, chemistry, education, public policy, or communication by obtaining a minor in that area. Students could pursue graduate programs in environmental science, environmental law, or education. They may also choose to prepare for careers in environmental monitoring or testing, environmental communication, watershed management, or environmental education.

Environmental Science at Saint Vincent College builds on the strength of our liberal arts tradition. Students in this major will be challenged to think critically about environmental problems. They will be able to express themselves clearly in both their written work and through oral communication. They will understand and be able to apply scientific principles to environmental issues and demonstrate this ability in their senior research project. To accomplish these goals the environmental science major has the following components:

- A strong foundation in math and natural science with at least 40 credits in this area including advanced environmental science courses.
- A multidisciplinary approach with required credits from seven different departments in the natural sciences, social sciences, and humanities.
- A flexible schedule. Students have 25 elective credits to tailor their education to fit their career goals.
- A strong emphasis in laboratory and field work. Students are required to complete 300 hours of laboratory work. Several courses offer extensive opportunities for field studies in many unique ecosystems near campus.
- Opportunities to expand class work through internships, summer research, and programming at the Saint Vincent College Environmental Education Center.
- An emphasis on writing throughout the program. Many of the required courses are "writing designated" indicating participation by the professor in the College's Interdisciplinary Writing Program. Through this program students learn to write within their disciplines following a campus-wide model for good writing.
- All students are required to complete a senior research project, which serves as a "capstone experience." In the spring semester of their junior year students prepare a proposal for original research. The student then conducts their research and writes a senior thesis under the guidance of an environmental science faculty member. The research project provides the student with first-hand experience investigating and reporting on an environmental problem.

**Requirements for Environmental Chemistry:**  
See Chemistry Department.

**Requirements for Environmental Affairs**  
See McKenna School.

**Requirements for Certification in Environmental Education K-12 and elementary certification with Environmental Science majors:**  
See the Education Department for teacher certification requirements in Secondary or Elementary Education. Interested students must contact the Chairperson of the Education Department and confer with their academic advisor. All programs begin in the sophomore year by registering for ED 100 Foundations of Education.

### Environmental Science (B.S.)

**Requirements for a Bachelor of Science Degree in Environmental Science**  
(See Core Curriculum requirements.)

#### Environmental Science Major Requirements (62-64 credits):

ES 150-152	Earth Systems Science and Lab	4
MA 109-110	Calculus I and II*	8
CH 101-104	General Chemistry I and II and Labs*	8
CH 216, 218	Quantitative Analysis and Lab	4
BL 150-153	General Biology I and II and Labs	8
BL 232, 233	Ecology and Lab	4
PH 111, 113	General Physics I and Lab	4
ES 220	Introduction to Geographic Information Systems	3
ES 301	Capstone Experience: Senior Research	2
ES 300	Junior Seminar	1
and		
ES 302	Senior Seminar	1
Humanities: Choose at least two:		6
EL 111	Green Writing: Literature and the Environment*	
HI 226	Society and the Environment: the American Experience*	
PL 217	Environmental Ethics*	
Social Science:		6
PS 390	Environmental Law and Policy*	
SO 161	Environmental Sociology*	
Advanced Environmental Courses (choose 1 lecture/lab)		4 or 5
CH 276, 277	Advanced Environmental Chemistry and Methods of Environmental Analysis	
BL 236, 237	Environmental Disturbances and Lab	
BL 228, 229	Wildlife Biology and Lab	
BL 230	Ornithology	3

\* Fulfill Core requirements

#### Electives: 25-28 credits

Those students interested in pursuing graduate degrees should carefully choose electives to meet basic requirements for their chosen program. Students should consult with their academic advisor early in their bachelor's program. Since the environmental science major is interdisciplinary there is significant overlap with other programs. A minor should have at least 8 credits in addition to those courses in the major.

#### Requirements for Minor in Environmental Studies\*\*\*\* (18 credits)

ES 115	Introduction of Environmental Science	3
or		
ES 150	Earth Systems Science	3
SO 161	Environmental Sociology	3
EL 111	Green Writing: Literature and the Environment	3
HI 226	Society and the Environment: the American Experience	3

PS 390	Environmental Law and Policy	3
PL 217	Environmental Ethics	3

#### Requirements for Minor in Environmental Science\*\*\*\* (15-16 credits):

ES 150-152	Earth Systems Science and Lab	4
BL 232-233	Ecology and Lab***	4
CH 216, 218	Quantitative Analysis and Lab***	4
Choose one course with lab: (May not count toward major)		
CH 276	Advanced Environmental Chemistry***	3
CH 277	Methods of Environmental Analysis (lab)***	2
BL 228, 229	Wildlife Biology and Lab ***	4
BL 230	Ornithology	3
BL 236-237	Environmental Disturbances and Lab***	4

\*\*\* General Chemistry I and II and/or General Biology I and II are prerequisites for these courses.

\*\*\*\* Environmental Science and Environmental Chemistry Majors may not minor in Environmental Science or Environmental Studies.

#### Typical First-Year Schedule

##### Environmental Science (B.S.)

##### Fall Semester

CH 101	General Chemistry I	3
CH 103	General Chemistry I Laboratory	1
Environmental Social Sciences		3
Modern and Classical Language		3
EL 102	Language & Rhetoric	3
HI—	History	3
Total Fall		16
All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum Requirement.		

##### Spring Semester

CH 102	General Chemistry II	3
CH 104	General Chemistry II Laboratory	1
ES 150	Earth Systems Science	3
ES 152	Earth Systems Science Laboratory	1
Modern and Classical Language		3
TH 119	First Theology	3
Total Spring		14
Total First-Year		30

## Course Descriptions

### ES 106 Physical Geology

An introduction to the study of the Earth focusing on the physical processes that determine the internal structure of the earth and the formation and evolution of the Earth's landscapes. Subjects of emphasis include the various types of rocks and minerals, weathering and the hydrological cycle, plate tectonics, and the earth's place in the solar system. This course also gives an overview of the scientific process and, when taken along with ES 107 Physical Geology Laboratory, is targeted to fulfill the objectives of a Tier 1 natural science course for non-science majors. Offered fall semester. Three credits.

### ES 107 Physical Geology Lab

This course consists of hands-on laboratory exercises chosen to illustrate and reinforce the topics presented in ES 106 Physical Geology. Topics of the exercises may include crystal growth, rock and mineral identifications both in the laboratory and in the field, mapping and remote sensing techniques, planetary geology and plate tectonics. Some laboratory exercises may include field trips to off-campus locations. Offered in conjunction with ES 106 Physical Geology. One credit.

**ES 111 The Science of Abandoned Mine Drainage**

We will explore the science of coal mining and its aftermath mine drainage. The course will use field trips (museums, mines, streams, treatment sites), video, class discussions, computer models, Internet explorations, and recent publications to understand coal mine drainage. We will start with the history and geology of coal. Then, explore the technology of mining both past and present. We will use a groundwater model to understand how the mines interact with water. We will discuss the chemistry of mine drainage formation and see its effects on the biology of streams. We will see first hand how new technologies have been developed to treat mine drainage. Through the study of abandoned mine drainage we will examine the interrelationships in nature and see that by working together we can make a difference in our environment. This course does not require math skills beyond pre-algebra. Natural Science Tier 1. Offered fall semester. Three credits.

**ES 113 The Science of Abandoned Mine Drainage Laboratory**

The laboratory will be integrated with the class. The lab explorations will include computer modeling, stream sampling, experiments on formation of mine drainage, its impacts on streams, and the efficiency of treatment methods. A final group project will examine a mine drainage site and develop a plan for remediation. Must be taken simultaneously with, or after successful completion of ES 111. Offered fall semester. One credit.

**ES 115 Introduction to Environmental Science (Tier 1)**

This course is designed to introduce both science and non-science majors to the physical processes and interrelationships between air, water, soil, and biota. Issues such as over population, pollution, and risk assessment will be covered. Natural Science Tier 1. Offered fall semester. Three credits.

**ES 117 Introduction to Environmental Science Laboratory (Tier 1)**

Laboratory exercises are designed to physically illustrate the principles discussed in ES 115. Must be taken simultaneously with, or after successful completion of ES 115. Natural Science Tier 1 Course. Offered fall semester. One credit.

**ES 150 Earth Systems Science (Tier 2)**

This course will explore the interconnections between the components of the Earth – the hydrosphere, the atmosphere, the lithosphere, and the biosphere. In doing this we will examine the systems that provide balance and stability to the Earth while at the same time explain processes of Earth's evolution. We will accomplish this through an interdisciplinary approach that combines resources from geology, chemistry, biology, oceanography, and meteorology. Natural Science Tier 2. Offered spring semester. Three credits.

**ES 152 Earth Systems Science Laboratory (Tier 2)**

This laboratory course is designed to illustrate and discover principles in Earth Systems Science. This will include computer simulations, physical models, and scientific investigations. Must be taken simultaneously with, or after successful completion of ES 150. Natural Science Tier 2. One credit.

**ES 220 Introduction to Geographic Information Systems**

This course will focus on examining environmental data using a computer based geographic information system (GIS). Students will learn to manipulate tabular data, query GIS databases, and present data in charts and maps. Students will utilize existing geographic data as well as develop new data sets. Offered odd-numbered spring semesters. Three credits.

**ES 300 Research Seminar I**

This course will introduce the student to the research experience and will include an orientation to the library and use of reference materials. Students will be assigned articles to read and discuss. An introduction to writing and presenting a research proposal will be included. Students will be introduced to the procedure for maintaining a laboratory research notebook. Outside speakers may present seminars on selected topics. Prerequisite: Junior standing. One credit.

**ES 301 Research Laboratory**

Independent study or investigation involving intensive work with faculty guidance in the laboratory and library. This course includes an assessment of cumulative laboratory skills. Prerequisite: ES 300. Two credits.

**ES 302 Research Seminar II**

Presentation of research work completed during the previous semester; the oral presentation is made after the thesis report has been written. Outside speakers may present seminars on selected topics. Prerequisite: ES 301. One credit.

**ES 350 Independent Study**

Studies to be chosen and developed by the student with the guidance of the professor directing the study. May be repeated. Variable credit.

**ES 550 Environmental Internship**

Work experience program extending the learning experience beyond the college into the world of work, through internships, field work and cooperative programs. Students may or may not be paid depending on the site. May be repeated. Variable credit.

# The Department of Fine Arts

## Division of Music

## Division of Visual Arts

Nathan Cochran, O.S.B., Chairperson, Art  
 Thomas Octave, Chairperson, Music  
 Stephen Concordia, O.S.B.; Cyprian Constantine, O.S.B.; Mark  
 Floreanini, O.S.B.; Colleen Reilly; Ben Schachter; Albert Tiberio

Adjunct Faculty: Christina Andrae; Richard Auman; Michele Boulet;  
 Gabriel D'Abruzzo; Jeremy Frantz; Barbara Jones; Duncan  
 MacDiarmid; Lisa Molinaro; Lara Lynn Cottrill-Nelson; Dawn  
 Posey; John Ritter; Lisa Spang; Richard Stoner; David Wygonik

*"I am firmly convinced that a monastic school, which does not  
 strive to advance art as much as science and religion, will be  
 deficient in its work."*

Boniface Wimmer, O.S.B.

The Department of Fine Arts offers seven majors that lead to the Bachelor of Arts degree: Art Education, Art History, Arts Administration (with concentrations in Performing Arts or Visual Arts), Graphic Design, Studio Arts, Music, and Music Performance. Five different minors are available: Art History, Graphic Design, Music, Music History, and Studio Arts. Certification in Art Education is also available through a joint program with the Department of Education.

Admission to the Department of Fine Arts as a major or minor is based on a successful audition for music majors/minors, or portfolio review for art majors/minors, in addition to the normal admission procedures of Saint Vincent College. Only the most artistically promising students are admitted into the Music Performance and Studio Arts major programs.

Attending theatrical and musical performances, and visiting museums, galleries and special exhibitions are an integral part of our Fine Arts programs. The proximity to Pittsburgh allows students access to nationally-recognized artistic, musical and theatrical organizations. The Saint Vincent College Concert Series draws world-class performers and musicians, and the Saint Vincent Summer Theatre is a regionally-acclaimed professional Equity theater. The Saint Vincent Gallery — which hosts temporary exhibitions of regionally and nationally recognized artists and the senior exhibitions of graduating art students — is the home of the art collections of the Archabbey and College; and the Foster and Muriel McCarl Collection of 19th century American coverlets— housed in the Fred Rogers Center — is an important resource for American craft and history. The Saint Vincent Camerata and the Saint Vincent College Choir perform in the historic Archabbey Basilica, and various ensembles perform in other venues on and off campus. In addition, there are dozens of opportunities for students to submit art work for inclusion in local and regional art exhibitions, and perform in musicals, operas and operettas locally and on campus. Thus, it is possible for our students to not only be spectators, but active participants in the performing and visual arts. Departmental courses frequently incorporate many of these resources in their syllabi enabling students to be able to study, see, and hear original works of art, theater and music directly, as well as create, perform and exhibit them. Fine arts students are encouraged to take advantage of all of these opportunities. This combination of coursework with "hands-on" experience is an excellent preparation for careers in art or music.

### Fine Arts Learning Objectives

- Students should know and be able to use discipline-based vocabulary.
- Students should be able to critique their own work as well as the work of others.
- Students should be able to identify stylistic characteristics.
- Students should have acquired basic facility in a broad range of media/instruments and/or research methods.
- Students should have acquired advanced facility in one medium/instrument.
- Students should have understanding of possible career paths.

### Division of Art

#### Mission Statement:

The founder of Saint Vincent College, Boniface Wimmer, stated that we will teach our students, "first what is necessary, then what is useful, and finally, that which is beautiful." The goal of the division of art follows our founder's goal. The curriculum is designed within a liberal arts structure to give the strongest possible foundation in the history of western art, and the traditional fine arts of drawing, design, painting and sculpture.

### Art Education

A portfolio review is required for admission to this major. Please contact the department chair for portfolio requirements.

Students who successfully complete the Art Education major and certification program will have received all of the necessary preparation needed to become a certified K-12 art teacher in the Commonwealth of Pennsylvania. Because the higher paying teaching jobs are given to those with master degrees, it is recommended that graduates of the program continue their artistic training by entering a master of fine arts program, whether while working as a teacher or directly after graduation.

In addition, Art Education majors seeking certification must also complete the requirements set by the Department of Education. Each student needs to see the Education Department for acceptance in the certification program and receive advising for the particular education courses needed. Some students elect to complete their degree in Art Education before finishing the requirements for certification. If this route is chosen, the student must continue coursework after graduation to complete their teaching certification requirements. The Art Education major demands a heavy course load; good communication between the student and his/her advisor is critical.

### Art Education Major Requirements (42 credits):

Required courses (33 credits):

AR 101	Art History I: Ancient through Renaissance	3
AR 102	Art History II: Baroque to the Present	3
AR 130	Drawing I	3
AR 131	Design: Two-Dimensional	3
AR 135	Design: Three-Dimensional	3
AR 225	Painting I	3
AR 230	Drawing II	3
AR 240	Sculpture I	3
AR 332	Painting II	3
AR 336	Sculpture II	3
AR 405	Senior Exhibition	3
One course selected from (3 credits):		
AR 200	Pre-Columbian Art and Architecture	3
AR 310	American Art and Architecture	3
Two courses selected from (6 credits):		
AR 212	Beginning Black and White Photography	3
AR 233	Drawing and Illustration for Design	3
AR 234	Introduction to Stained Glass	3
AR 236	Fiber Art	3



AR 238	Clay and Pottery	3
AR 330	Digital Photography and Post-Production	3
AR 333	Advanced Black and White Photography	3
AR 338	Printmaking I	3
AR 348	Printmaking II	3
CA 235*	Introduction to Web Design	3
CA 285*	Electronic Media	3

\* Course description can be found listed in the Department of Communication.

### Typical First-Year Art Education Major Schedule:

#### Fall Semester (16/18 credits)

AR 101	Art History I: Ancient through Renaissance	3
AR 130	Drawing I	3
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Elementary Modern or Classical Language		4
or		
Intermediate Modern or Classical Language		3
MA—	Mathematics	3 or 4
If Mathematics is postponed, then one of the following should be taken:		
ED 100	Foundations of Education	3
PY 100	Introduction to Psychology	3

One of the courses listed above will be taken and designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

#### Spring Semester (16/18 credits)

AR 102	Art History II: Baroque to the Present	3
AR 131	Design: Two-Dimensional	3
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Elementary Modern or Classical Language		4
or		
Intermediate Modern or Classical Language		3
MA—	Mathematics	3 or 4
If Mathematics was taken in the fall, then one of the following should be taken:		
ED 100	Foundations of Education	3
PY 100	Introduction to Psychology	3

## Art History

Students who successfully complete the Art History major will have a solid background in the liberal arts, western art history and academic research methods and writing. Graduates of the program will be prepared to enter art history graduate programs or lower level museum positions. It is recommended that all graduates of the program enter a graduate school art history or museumology program.

### Art History Major Requirements (39 credits):

#### Required courses (21 credits):

AR 101	Art History I: Ancient through Renaissance	3
AR 102	Art History II: Baroque to the Present	3
AR 130	Drawing I	3
AR 200	Pre-Columbian Art and Architecture	3
AR 310	American Art and Architecture	3
AR 320	Junior Seminar	3
AR 420	Senior Research Project/Thesis	3
One course selected from (3 credits):		
AR 131	Design: Two-Dimensional	3
AR 212	Beginning Black and White Photography	3
AR 225	Painting I	3
AR 338	Printmaking I	3

#### Five courses selected from (15 credits):

AN 225*	Anthropology and World Art	3
AR 145	Introduction to Film Studies	3

AR 280	Museum and Performing Arts Studies	3
AR 350	Independent Study	3
AR 360	Renaissance Art and Architecture	3
AR 365	Baroque Art and Architecture	3
AR 375	19th Century Art Seminar	3
AR 380	20th Century Art Seminar	3
AR 385	Contemporary Art Seminar	3
AR 390	Non-Western Art Seminar	3
AR 550	Internship	3

\* Course description can be found listed in the Department of Sociology/Anthropology.

### Typical First-Year Art History Major Schedule:

#### Fall Semester (16/18 credits)

AR 101	Art History I: Ancient through Renaissance	3
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Elementary Modern or Classical Language		4
or		
Intermediate Modern or Classical Language		3
MA—	Mathematics	3 or 4

And one of the following:

AR 130	Drawing I	3
HI—	History	3
Social Science		3

If Mathematics is postponed, then two of the above should be taken.

One of the courses listed above will be taken and designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

#### Spring Semester (16/18 credits)

AR 102	Art History II: Baroque to the Present	3
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Elementary Modern or Classical Language		4
or		
Intermediate Modern or Classical Language		3
MA—	Mathematics (if not taken in the fall)	3
And one of the following:		
AR 131	Design: Two-Dimensional	3
HI—	History	3
Social Science		3

If Mathematics is not taken this semester, then two of the above should be taken.

### Art History Minor Requirements (18 credits)

#### Required courses (6 credits):

AR 101	Art History I: Ancient through Renaissance	3
AR 102	Art History II: Baroque to the Present	3

#### Three courses selected from (9 credits):

AN 225*	Anthropology and World Art	3
AR 145	Introduction to Film Studies	3
AR 200	Pre-Columbian Art and Architecture	3
AR 310	American Art and Architecture	3
AR 330	Digital Photography and Post Production	3
AR 360	Renaissance Art and Architecture	3
AR 365	Baroque Art and Architecture	3
AR 375	19th Century Art Seminar	3
AR 380	20th Century Art Seminar	3
AR 385	Contemporary Art Seminar	3
AR 390	Non-Western Art Seminar	3

#### One course selected from (3 credits):

AR 130	Drawing I	3
AR 131	Two-Dimensional Design	3
AR 212	Beginning Black and White Photography	3

\* Course description can be found listed in the Department of Sociology/Anthropology.



## Arts Administration with Visual Arts Concentration

Students who successfully complete the Arts Administration major with a Visual Arts concentration will receive a solid background in business, an understanding of various arts organizations and be uniquely qualified to administer various arts and non-profit organizations. Higher level positions are given to those with master degrees, so it is recommend that graduates of the program consider obtaining a graduate degree in business or arts administration.

This is an inter-disciplinary major. Some courses required for this major are in different departments or divisions. Course descriptions for courses marked BA can be found in the Department of Business Administration listings, CA in the Department of Communication listings, and HI in the Department of History listings.

### Arts Administration Major with Visual Arts Concentration (48 credits):

Required courses (39 credits):

AR 101	Art History I: Ancient through Renaissance	3
AR 102	Art History II: Baroque to the Present	3
AR 130	Drawing I	3
AR 131	Design: Two-Dimensional	3
AR 280	Museum and Performing Arts Studies	3
AR 320	Junior Seminar	3
AR 420	Senior Research Project/Thesis	3
AR 550	Internship	3
BA 102	Survey of Accounting	3
BA 104	Introduction to Management	3
BA 220	Principles of Marketing	3
BA 230	Introduction to Entrepreneurship	3
HI 306	Introduction to Non-profit Organizations	3

One course selected from (3 credits):

AR 145	Introduction to Film Studies	3
AR 200	Pre-Columbian Art	3
AR 375	19th Century Seminar	3
AR 380	20th Century Seminar	3

Two courses selected from (6 credits):

AR 330	Digital Photography and Post-Production	3
CA 235	Introduction to Web Design	3
CA 285	Electronic Media	3

or

Any other art studio or art history course offered by the department.

### Recommended Electives:

EL 109	Business Communications
BA 150	Managerial Accounting
BA 305	Business Ethics

### Typical First-Year Arts Administration Major Schedule:

#### Fall Semester (16/18 credits)

AR 101	Art History I: Ancient through Renaissance	3
BA 104	Introduction to Management	3
EL 102	Language and Rhetoric	3

or

TH 119	First Theology	3
Elementary Modern or Classical Language		4

or

Intermediate Modern or Classical Language		3
MA—	Mathematics	3 or 4

If Mathematics is postponed, then one of the following should be taken:

HI—	History	3
Social Science		3

One of the courses listed above will be taken and designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

#### Spring Semester (16/18 credits)

AR 102	Art History II: Baroque to the Present	3
BA 102	Survey of Accounting	3
EL 102	Language and Rhetoric	3

or

TH 119	First Theology	3
Elementary Modern or Classical Language		4

or

Intermediate Modern or Classical Language		3
MA—	Mathematics	3 or 4

If Mathematics was taken in the fall, then one of the following should be taken:

HI—	History	3
Social Science		3

## Graphic Design

A portfolio review is required for admission to this major. Please contact the department chair for portfolio requirements.

Students who successfully complete the graphic design major will have a solid background in traditional as well as contemporary techniques and methods of graphic design. The curriculum reflects the broad skills students must acquire: a foundation in the history of visual art, strong critical thinking and the occupational skills necessary for success in the field. Students focus their time on two-dimensional media, including design, drawing, painting, photography, printmaking, and digital-related, web-based media. It is recommended that the student in this major also consider completing a minor in Communication, Computer Science or Business to make the program graduate more marketable. Graduates will be prepared to take internships or entry-level positions in graphic design

### Graphic Design Major Requirements (42 credits):

Required courses (39 credits):

AR 101	Art History I: Ancient through Renaissance	3
AR 102	Art History II: Baroque to the Present	3
AR 130	Drawing I	3
AR 131	Design: Two-Dimensional	3
AR 212	Beginning Black and White Photography	3
AR 225	Painting I	3
AR 233	Drawing and Illustration for Design	3
AR 330	Digital Photography and Post-Production	3
AR 334	Typography	3
AR 338	Printmaking	3
AR 405	Senior Exhibition	3
CA 235*	Introduction to Web Design	3
CA 285*	Electronic Media	3

One course selected from (3 credits):

AR 145	Introduction to Film Studies	3
AR 200	Pre-Columbian Art and Architecture	3
AR 310	American Art and Architecture	3

\* Course description can be found listed in the Department of Communication.

**Typical First-Year Graphic Design Major Schedule:***Fall Semester (16/18 credits)*

AR 101	Art History I: Ancient through Renaissance	3
AR 130	Drawing I	3
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Elementary Modern or Classical Language		4
or		
Intermediate Modern or Classical Language		3
MA—	Mathematics	3 or 4
If Mathematics is postponed, then one of the following should be taken:		
HI—	History	3
Social Science		3
One of the courses listed above will be taken and designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.		

*Spring Semester (16/18 credits)*

AR 102	Art History II: Baroque to the Present	3
AR 131	Design: Two-Dimensional	3
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Elementary Modern or Classical Language		4
or		
Intermediate Modern or Classical Language		3
MA—	Mathematics	3 or 4
If Mathematics was taken in the Fall, then one of the following should be taken:		
HI—	History	3
Social Science		3

**Graphic Design Minor Requirements (18 credits):**

A portfolio review is required for admission to this minor. Please contact the department chair for portfolio requirements.

**Required courses (6 credits):**

AR 130	Drawing I	3
AR 131	Design: Two-Dimensional	3
Four courses selected from (12 credits):		
AR 212	Beginning Black and White Photography	3
AR 230	Drawing II	3
AR 233	Drawing and Illustration for Design	3
AR 330	Digital Photography and Post-Production	3
AR 338	Printmaking I	3
CA 235*	Introduction to Web Design	3
CA 285*	Electronic Media	3

\* Course description can be found listed in the Department of Communication

**Studio Arts**

A portfolio review is required for admission to this major. Please contact the department chair for portfolio requirements.

Students who successfully complete the Studio Arts major will have a solid background in the liberal arts and the fine arts, with particular emphasis on drawing, design, painting, sculpture and the history of art. While it is possible for the program graduate to begin work as a fine artist, it is recommended that graduates continue their artistic training by entering a master of fine arts program, or accepting an apprenticeship under a working artist.

**Studio Arts Major Requirements (42 credits):****Required courses (36 credits):**

AR 101	Art History I: Ancient through Renaissance	3
AR 102	Art History II: Baroque to the Present	3
AR 130	Drawing I	3
AR 131	Design: Two-Dimensional	3

AR 135	Design: Three-Dimensional	3
AR 225	Painting I	3
AR 230	Drawing II	3
AR 240	Sculpture I	3
AR 325	Painting II	3
AR 336	Sculpture II	3
AR 404	Senior Studio	3
AR 405	Senior Exhibition	3
One course selected from (3 credits):		
AR 200	Pre-Columbian Art and Architecture	3
AR 310	American Art and Architecture	3
One course selected from (3 credits):		
AR 212	Beginning Black and White Photography	3
AR 233	Drawing and Illustration for Design	3
AR 234	Introduction to Stained Glass	3
AR 236	Fiber Art	3
AR 238	Clay and Pottery	3
AR 330	Digital Photography and Post-Production	3
AR 338	Printmaking I	3
CA 235*	Introduction to Web Design	3
CA 285*	Electronic Media	3

\*Course description can be found listed in the Department of Communication.

**Typical First-Year Studio Arts Major Schedule:***Fall Semester (16/18 credits)*

AR 101	Art History I: Ancient through Renaissance	3
AR 130	Drawing I	3
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Elementary Modern or Classical Language		4
or		
Intermediate Modern or Classical Language		3
MA—	Mathematics	3 or 4
If Mathematics is postponed to the Spring, then one of the following should be taken:		
HI—	History	3
Social Science		3
One of the courses listed above will be taken and designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.		

*Spring Semester (16/18 credits)*

AR 102	Art History II: Baroque to the Present	3
AR 131	Design: Two-Dimensional	3
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Elementary Modern or Classical Language		4
or		
Intermediate Modern or Classical Language		3
MA—	Mathematics	3 or 4
If Mathematics was taken in the Fall, then one of the following should be taken:		
HI—	History	3
Social Science		3

**Studio Arts Minor Requirements (18 credits)**

A portfolio review is required for admission to this minor. Please contact the department chair for portfolio requirements.

**Required courses (15 credits):**

AR 101	Art History I: Ancient through Renaissance	3
AR 102	Art History II: Baroque to the Present	3
AR 130	Drawing I	3
AR 131	Design: Two-Dimensional	3
AR 225	Painting I	3

One course selected from:

AR 135	Design: Three-Dimensional	3
AR 212	Beginning Black and White Photography	3
AR 230	Drawing II	3
AR 234	Introduction to Stained Glass	3
AR 236	Fiber Art	3
AR 238	Clay and Pottery	3
AR 325	Painting II	3
AR 338	Printmaking I	3

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## Course Descriptions

### AR 100 Art and Music of Western Culture

An interdisciplinary course designed to provide students with an introductory experience in the fine arts. The course is divided into two components. The first consists of a survey of the evolution of art and music in the context of the historical and cultural background of major periods of western civilization. The second is a study of the principles inherent in both musical composition and the structure and meaning of style and expression in architecture, painting, and sculpture. No prerequisites. Fulfills the Core Curriculum Fine Arts requirement. Offered both semesters. Three credits.

### AR 101 Art History I: Ancient through Renaissance

This course provides an introduction to the art and architecture of western culture from pre-history through the Renaissance. Topics include the Neolithic Age, Ancient Near East Art, Egyptian Art, Greek and Roman Art, the Middle Ages (Early Christian, Romanesque, and Gothic), and Renaissance Art. Emphasis is placed on how art and architecture reinforce the social, religious, and cultural beliefs of civilizations. No prerequisites. Fulfills the Core Curriculum fine arts requirement. Offered fall semester. Three credits.

### AR 102 Art History II: Baroque to the Present

This course continues to provide an introduction to the art and architecture of western culture by focusing on the art and architecture of the 17th through the 20th centuries. Topics include Baroque Art, Rococo, Neo-Classical, and Romantic periods as well as Impressionism, Expressionism and various artistic movements of the 20th century. Emphasis is placed on how art and architecture reinforce the social, religious, and cultural beliefs of the periods. No prerequisites but AR 100 or AR 101 is recommended. Fulfills the Core Curriculum fine arts requirement. Offered spring semester. Three credits.

### AR 125 Acting

Fundamental skills for acting for the stage. The major emphasis is on actor development and growth through character portrayal, scene performances, and written work. Representative selections from the various historical periods of Western Theater. Fulfills the Core Curriculum fine arts requirement. No prerequisites. Fulfills the Core Curriculum fine arts requirement. Offered both semesters. Three credits.

### AR 130 Drawing I

An introductory course to the methods and materials of drawing. Its purpose is to provide the student with solid foundational skills and the opportunity to explore a variety of approaches to drawing. Line, color, form, value, and composition will be the primary topics. No prerequisites. Fulfills the Core Curriculum fine arts requirement. Fee. Offered fall semester. Three credits.

### AR 131 Design: Two-Dimensional

This course will explore the elements of two-dimensional design. The student will use a variety of materials in both theoretical and

practical uses. Topics will include composition, color, and visual communication. The history and function of design will also be examined. No prerequisites. Fulfills the core curriculum fine arts requirement. Fee. Offered spring semester. Three credits.

### AR 135 Design: Three-Dimensional

What is good design? How does the shape of something contribute to how well it works, or how willing we are to use it? This introductory course will consider shape as a dynamic quality. Positive and negative form, surface, and the way something feels will be considered as components of a good design. Assignments will involve forming, fabrication, and joining of various materials. No prerequisites but AR 130 and AR 131 are recommended. Fulfills the Core Curriculum fine arts requirement. Fee. Offered spring semester odd-numbered years. Three credits.

### AR 145 Introduction to Film Studies

This introductory course discusses the history and criticism of film. Topics include directors, film vocabulary, analysis and important historical examples. Class format will include film screenings, discussions and lectures. Fulfills the Core Curriculum fine arts requirement. No prerequisites. Offered fall semester. Three credits.

### AR 200 Pre-Columbian Art and Architecture

This course introduces students to the art and architecture produced by the major cultures of Mesoamerica and the Andes in Pre-Columbian times (before the arrival of Columbus and the Spanish Conquistadors). As many of these societies lacked writing systems (or used systems not yet fully deciphered today), the works of art and architecture themselves will be examined as a way to gain understanding of these peoples, their cosmology, myths and rituals. No prerequisites. Offered fall semester odd-numbered years. Three credits.

### AR 212 Beginning Black and White Photography

An introductory course designed to teach the student 35mm black and white film exposure, processing, and producing the classic b/w print. Camera techniques will be discussed along with darkroom procedures. A brief history of the medium will also be included with an emphasis on fine art photography. A 35mm camera in good working order is required to be supplied by each student. No prerequisites. Fee. Offered both semesters. Three credits.

### AR 215 Acting II

This course will strengthen and expand upon the basic stage acting skills. The focus will be on character building and scene analysis, along with the various tools (voice, movement, etc.) necessary for successful theatrical performances. Students will study various theoretical approaches to the art of acting, but our primary goal will be practical: most of the course will consist of exercises and scene work. Prerequisite: AR 125 or permission of instructor. Offered spring semester, as needed. Three credits.

### AR 225 Painting I

This intermediate level course is for students who want to learn the methods and materials of painting with oils and acrylics. Its purpose is to provide the student with solid foundational skills and an opportunity to explore a variety of approaches in the creation of paintings including layering, glazing, mixing paint medium and proper studio maintenance. Prerequisites: AR 130 and AR 131. Fee. Offered fall semester. Three credits.

### AR 230 Drawing II

This course is a progression of AR 130. Students will refine their skills and have the opportunity to expand their use of materials. Student will be encouraged to develop a personal style and to explore his or her own kind of mark making. Prerequisite: AR 130. Fee. Offered spring semester. Three credits.

**AR 233 Drawing and Illustration for Design**

In this class various methods of design and visual communication used by designers will be explored. Sketching and rendering skills to help resolve form while communicating ideas within interdisciplinary environments will be developed. The course will focus on sketching from the ideation phase through to a final solution that fully describes the aesthetic and emotive intents. Functional and manufacturing requirements will be considered, as will various illustration genres, including books, editorial and corporate illustration. The course is built on the belief that strong two-dimensional skills remain the essential tool for product designers and illustrators. Prerequisites: AR 130 and AR 131. Fee. Offered spring semester odd-numbered years. Three credits.

**AR 234 Introduction to Stained Glass**

Students will be introduced to the tools and materials needed to create both two and three-dimensional designs made with stained glass. Processes include: designing stained glass, cutting glass, assembling using the copper foil method and leading glass, soldering lead and copper foil, sealing leaded panels. Prerequisite AR 130 or AR 131. Fee. Offered fall semester odd-numbered years. Three credits.

**AR 236 Fiber Arts**

This class will include both traditional and non-traditional fibers. We will explore various methods of creating artwork using fiber which will include knitting, crocheting, felting, and weaving. Animal, vegetable, and mineral fibers will be spun into usable strands to create cloth and other art pieces. The use of embellishments such as beads, embroidery, and trims added to fabric will also be employed. Prerequisite AR 135. Fee. Offered fall semester even-numbered years. Three credits.

**AR 238 Clay and Pottery**

This course will introduce the student to various techniques used when working with clay. Students will create three-dimensional forms in clay through hand-building, pinching, coiling, and throwing on a potter's wheel. The finished forms will be fired in a kiln and glazed. The outcome of this class is to create clay based art that will be included in the student's final portfolio. Prerequisite: AR 135. Fee. Offered Spring semester of odd-numbered years. Three credits.

**AR 240 Sculpture I**

Sculpture takes many forms. Students will be introduced to a variety of construction techniques involving clay, plaster, wire, fibers, and other materials. Assignments will challenge the student to find the scope of possibilities with each material. In addition to the development of artistic skills, students will participate in critiques that reinforce critical thinking in the classroom. Prerequisite: AR 135. Fee. Offered fall semester odd-numbered years. Three credits.

**AR 280 Museum and Performing Arts Studies**

This course assists the student in understanding the role and mission of various types of museums and performing arts organizations. Visual and performing arts organizations' facilities, community outreach, performances and exhibitions, as well as staffing and work will be examined. The course will have readings and lectures interspersed with trips to local museums and performing arts organizations so that the student may understand these principles as they pertain to large and small arts organizations. N.B.: When registering for this course, the student should be free for at least an hour before and after the actual course time to facilitate travel time to various sites. No prerequisites. Fee. Offered spring semester in even-numbered years. Three credits.

**AR 310 American Art and Architecture**

This course is a survey of American art and architecture that will focus on the 19th and 20th centuries. Emphasis will be placed on the relationship of American thought and the ever-shifting relationship between American artists and architects and their European contemporaries. Prerequisite: AR 102. Offered spring semester odd-numbered years. Three credits.

**AR 320 Junior Seminar**

This seminar is intended for advanced students in art history as a preparation for AR 420 Senior Research Project/Thesis. It will focus on identifying a research topic, and emphasize research techniques, presentation skills, and writing skills. For junior art history and arts administration majors. Offered spring semester. Three credits.

**AR 325 Painting II**

This course is a progression of AR 225. Students will refine their skill and have the opportunity to expand their use of materials. The student should begin to develop a personal style. Prerequisite: AR 225. Fee. Offered spring semester. Three credits.

**AR 330 Digital Photography and Post-Production**

This course teaches students about digital photography and post-production, providing them with the knowledge, skills and experience necessary in professions which utilize photographs and digital art in various applications. Topics and skills the course will address include the history and development of the modern digital camera, terminology used in digital imagery, physical components and features of digital cameras, and post-production techniques in image enhancement and manipulation. Through class demonstrations and assigned projects, students will gain hands-on experience, as well as be taught additional techniques in framing, lighting, posing, and story-telling with digital photographs. The course will conclude with a digital exhibition of the students' work. Since mastering the complexity of the various features available on digital cameras today is an integral part of the course, each student is required to have a personal digital camera to use. This camera should have various features and functions, and be the best quality camera the student can afford. No prerequisites. Offered spring semester, as needed. Three credits.

**AR 333 Advanced Photography**

A continuation of AR 212, this black and white film course explores the use of different films, different printing papers, various darkroom techniques, and features the use of a large format camera and film. The emphasis of the course will be on fine art photographic image making. Students will be required to supply a working 35mm camera. Prerequisite: AR 212. Fee. Offered spring semester even-numbered years. Three credits.

**AR 334 Typography**

The fundamentals of typography, its theory, practice, technology and history will be covered in this course. Letterforms, type design and classification, proportion, and hierarchy will be studied. Students will focus on the details of page composition and the relationship of space to clarity, legibility and aesthetics. Typography and letterforms will be explored as both a means of communication and a vehicle for expression and enhanced meaning. Prerequisites: AR 130 and AR 131. Fee. Three credits.

**AR 336 Sculpture II**

This advanced course is a continuation of AR 240 Sculpture I. Proficiency with a variety of materials is assumed. More challenging conceptual and theoretical assignments will challenge students to develop their own working methods and relationship to materials. Prerequisites: AR 240. Fee. Offered spring semester even-numbered years. Three credits.



**AR 338 Printmaking I**

An introduction to the basic procedures of the major processes for creating multiple originals: relief, serigraphy, intaglio, screen, and lithography. Prerequisites: AR 130 and AR 131. Fee. Offered fall semester odd-numbered years. Three credits.

**AR 348 Printmaking II**

An in-depth investigation of student selected processes with emphasis on refined basic technique as well as sophisticated technical applications. Prerequisites: AR 130, AR 131 and AR 338. Fee. Offered spring semester even-numbered years. Three credits.

**AR 350 Independent Study**

Topics of research are chosen and developed by the student with the guidance of the professor directing the study. May be repeated. Prerequisites: AR 101 and AR 102 or AR 130, AR 131 and AR 225. May be repeated. Permission of the instructor and department chair required. Variable credit.

**AR 360 Renaissance Art and Architecture**

This course will examine the art and architecture of the Renaissance of the 15th and 16th centuries. Although the course focuses on the Italian Renaissance, artistic trends in Northern Europe will be included. Prerequisite: AR 101. Offered fall semester even-numbered years. Three credits.

**AR 365 Baroque Art and Architecture**

This course will examine the art and architecture of the Baroque period. The course will focus on the Italian Baroque style, including its influence on the art and architecture of England, France, Northern Europe, Spain, and the New World, as well as its adaptation into the Rococo style. Prerequisite: AR 102. Offered spring semester odd-numbered years. Three credits.

**AR 375 19th Century Art Seminar**

The specific subject of this seminar will alternate but it will always address a significant aspect of 19th century art or architecture. Prerequisite: AR 102. Offered fall semester odd-numbered years. Three credits.

**AR 380 20th Century Art Seminar**

The specific subject of this seminar will alternate but it will always address a significant aspect of 20th century art or architecture. Prerequisite: AR 102. Offered spring semester even-numbered years. Three credits.

**AR 385 Contemporary Art Seminar**

The specific subject of this seminar will alternate but it will always address a significant aspect of contemporary art and architecture. Prerequisite: AR 102. Offered fall semester even-numbered years. Three credits.

**AR 390 Non-Western Art Seminar**

The specific subject of this seminar will alternate but it will always address a significant aspect of non-western art and architecture. Prerequisites: AR 101 or AR 102. Offered fall semester even-numbered years. Three credits.

**AR 404 Senior Studio**

This advanced course is intended for senior art majors only. Taken in the fall semester preceding AR 405 Senior Exhibition, students create a body of work that reflects their achievements, personal interests and artistic proficiency. Students may work in a variety of media including painting, drawing, printmaking, or three-dimensional materials. Students work independently and assignments are tailored to individual needs. This course is required for all Studio Arts majors but may also be taken by art education and graphic design majors. Permission of instructor required. Fee. Offered fall semester. Three credits.

**AR 405 Senior Exhibition**

Senior art majors are required to present an exhibition of their work in the spring semester of their senior year. This course guides the student through all the various aspects of mounting an exhibition. For Senior Art Education, Graphic Design and Studio Arts majors. Fee. Offered spring semester. Three credits.

**AR 420 Senior Research Project/Thesis**

All Art History and Arts Administration majors are required to submit a thesis or project in their senior year. The student will work closely with a faculty member who will serve as the advisor. The finished project will be submitted to a committee for review. For senior art history and arts administration majors. Permission of instructor required. Offered fall semester. Three credits.

**AR 550 Internship**

Students may work in a professional setting in order to extend their learning experience beyond college into the world of work; relevant experiences can take the form of internships, field work, and cooperative programs, particularly in artist studios, commercial graphic design departments, art galleries, museums and arts management offices. Students may or may not be paid, depending on the policy of the employer. For junior and senior art majors and minors only. May be repeated. Variable credit.

**Division of Music****Mission Statement:**

The founder of Saint Vincent College, Boniface Wimmer, stated that we will teach our students, "first what is necessary, then what is useful, and finally, that which is beautiful." The goal of the division of music follows our founder's goal. The curriculum is designed within a liberal arts structure to give the strongest possible foundation in the history and theory of western music, and its practice and performance through applied music lessons and ensembles

**Arts Administration with Performing Arts Concentration**

An audition is not required for admission into this major, but the student should have some level of musical skill on one of the following instruments: voice, piano, organ, violin, viola, guitar (acoustic, classical, jazz, or bass), flute, clarinet, saxophone, trumpet, French horn, or trombone.

Students who successfully complete the Arts Administration major with a Performing Arts concentration will receive a solid background in business, an understanding of various arts and musical organizations, and be uniquely qualified to administer various musical and non-profit organizations. Higher level positions are given to those with master degrees, so it is recommended that graduates of the program consider obtaining a graduate degree in business or arts administration.

This is an inter-disciplinary major. Some courses required for this major are in different departments or divisions. Course descriptions for courses marked AR can be found in the Division of Visual Arts listings; BA in the Department of Business Administration listings; CA in the Department of Communication; and HI in the Department of History listings.



## Arts Administration Major with Performing Arts Concentration Requirements (48 credits):

Required each semester:

MU 090	Recital Attendance	0
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Required courses (42 credits):

AR 280	Museum and Performing Arts	3
BA 102	Survey of Accounting	3
BA 104	Introduction to Management	3
BA 220	Principles of Marketing	3
BA 230	Introduction to Entrepreneurship	3
HI 306	Introduction to Non-profit Organizations	3
MU 108	Music History and Literature: Baroque and Classical Periods	3
MU 109	Music History and Literature: Romantic and Contemporary Periods	3
MU 115	Fundamentals of Music Theory	3
MU 208	Harmony I	3
MU 320	Junior Seminar	3
MU 325	Primary Instrument Lessons for Majors/Minors (minimum total of 3 credits)	1 or 2
MU 410	Senior Research Project/Thesis	3
MU 550	Cooperative Education—Internship	3

Sections chosen from (6 credits):

CA 235	Introduction to Web Design	3
CA 285	Electronic Media	3

or

Any combination of other music courses, lessons or ensembles offered by the department.

Recommended electives:

BA 150	Managerial Accounting	3
BA 305	Business Ethics	3
EL 109	Business Communications	3

## Typical First-Year Arts Administration Major Schedule:

### Fall Semester (16/18 credits)

MU 090	Recital Attendance	0
MU 108	Music History and Literature: Baroque and Classical Periods	3
BA 104	Introduction to Management	3
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Elementary Modern or Classical Language		4
or		
Intermediate Modern or Classical Language		3

MA— Mathematics 3 or 4  
If Mathematics is postponed, then one of the following should be taken:

HI—	History	3
Social Science		3

One of the courses listed above will be taken and designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

### Spring Semester (16/18 credits)

MU 090	Recital Attendance	0
MU—	Music course	3
BA 102	Survey of Accounting	3
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Elementary Modern or Classical Language		4
or		
Intermediate Modern or Classical Language		3

MA— Mathematics 3 or 4  
If Mathematics was taken in the fall, then one of the following should be taken:

HI—	History	3
Social Science		3

## Music

Students must successfully pass an audition to be admitted to this major. Please contact the department chair to schedule an audition and receive audition guidelines. Students may choose their primary instrument from one of the following instruments: voice, piano, organ, violin, viola, guitar (acoustic, classical, jazz, bass), flute, clarinet, saxophone, trumpet, French horn, and trombone.

All Music Majors are required to demonstrate piano proficiency before graduation. In addition, all Music Majors are expected to participate in an ensemble each semester.

While it is possible to begin work as a musician after having completed the program, it is recommended that graduates continue their musical training by entering a graduate program to pursue a masters or doctoral degree.

## Music Major Requirements (48-50 credits):

Required each semester (16 credits):

MU 090	Recital Attendance	0
MU 325	Primary Instrument for Majors/Minors (2 credits for 8 semesters or a total of 16 credits)	2

Required courses (24 credits):

MU 108	Music History: Baroque and Classical Periods	3
MU 109	Music History: Romantic and Contemporary Periods	3
MU 115	Fundamentals of Music Theory	3
MU 205	Sight Singing, Ear Training and Solfeggio I	3
MU 206	Sight Singing, Ear Training and Solfeggio II	3
MU 208	Harmony I	3
MU 209	Harmony II	3
MU 220	Form and Analysis	3

Any combination of ensembles selected from (8 credits):

MU 170	Saint Vincent College Choir	1
MU 175	Instrumental Ensemble	1
MU 180	Saint Vincent College Singers	1
MU 181	Musical Theater Workshop	1
MU 182	Opera Workshop	1
MU 185	Saint Vincent Camerata	1

Additional requirements for voice majors (2 credits):

MU 317	Diction for Singers: Italian, Spanish and Latin	1
MU 318	Diction for Singers: English, German and French	1

## Typical First-Year Music Major Schedule:

### Fall Semester (16/17 credits)

MU 090	Recital Attendance	0
MU 108	Music History: Baroque and Classical Periods	3
MU 115	Fundamentals of Music Theory	3
MU 325	Primary Instrument for Majors/Minors	2
MU	Music Ensemble	1
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Elementary Modern or Classical Language		4
or		
Intermediate Modern or Classical Language		3
or		
MA—	Mathematics	3 or 4

If Mathematics and Languages are postponed, then one of the following should be taken:

HI—	History	3
Social Science		3

One of the courses listed above will be taken and designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

### Spring Semester (15/17 credits)

MU 090	Recital Attendance	0
MU 109	Music History: Romantic and Contemporary Periods	3
MU 325	Primary Instrument for Majors/Minors	2
MU	Music Ensemble	1

EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Elementary Modern or Classical Language		4
or		
Intermediate Modern or Classical Language		3
MA—	Mathematics	3 or 4
If Mathematics was taken in the fall, then one of the following should be taken:		
HI—	History	3
Social Science		3

#### Music Minor Requirements (18 credits):

Students must successfully pass an audition to be admitted to this minor. Please contact the department chair to schedule an audition and receive audition guidelines.

Required each semester:

MU 090	Recital Attendance	0
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Required courses (9 credits):

MU 108	Music History: Baroque and Classical Periods	3
MU 109	Music History: Romantic and Contemporary Periods	3
MU 115	Fundamentals of Music Theory	3

Two or three semesters of private instruction (3 credits):

MU 325	Primary Instrument for Majors/Minors	1 or 2
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Any combination of ensembles or private instruction selected from (6 credits): Two semesters of piano study are recommended if the minor's primary instrument is non-keyboard.

MU 225	Secondary Instrument for Majors/Minors	1 or 2
MU 170	Saint Vincent College Choir	1
MU 175	Instrumental Ensemble	1
MU 180	Saint Vincent College Singers	1
MU 181	Musical Theater Workshop	1
MU 182	Opera Workshop	1
MU 185	Saint Vincent Camerata	1
MU 325	Primary Instrument for Majors/Minors	1 or 2

#### Music History Minor (18 credits):

Required each semester:

MU 090	Recital Attendance	0
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Required courses:

MU 106	World Music	3
MU 108	Music History: Baroque and Classical Periods	3
MU 109	Music History: Romantic and Contemporary Periods	3
MU 112	Survey of Musical Theater and Opera	3
MU 115	Fundamentals of Music Theory	3
MU 720	Gregorian Chant*	3

\* Offered through Saint Vincent Seminary.

## Music Performance

Students must successfully pass an audition to be admitted to this major. Please contact the department chair to schedule an audition and receive audition guidelines. The Music Performance Major is a select major and is restricted to the following instruments: organ, piano, voice. Only the best students who are single-mindedly resolute to become a professional musician should audition for this major.

All Music Performance Majors are required to demonstrate piano proficiency before graduation. In addition, all Music Performance Majors are expected to participate in an ensemble each semester.

While it is possible to begin work as a musician after having completed the program, it is recommended that graduates continue their musical training by entering a graduate program to pursue a masters or doctoral degree.

#### Music Performance Major Requirements (67-69 credits):

Required each semester (32 credits):

MU 090	Recital Attendance	0
MU 425	Primary Instrument for Performance Majors	4
(4 credits for 8 semesters or a total of 32 credits)		

Required courses (27 credits):

MU 108	Music History: Baroque and Classical Periods	3
MU 109	Music History: Romantic and Contemporary Periods	3
MU 115	Fundamentals of Music Theory	3
MU 205	Sight Singing, Ear Training and Solfeggio I	3
MU 206	Sight Singing, Ear Training and Solfeggio II	3
MU 208	Harmony I	3
MU 209	Harmony II	3
MU 220	Form and Analysis	3
MU 330	Junior Recital	1
MU 430	Senior Recital	2

Any combination of ensembles selected from (8 credits):

MU 170	Saint Vincent College Choir	1
MU 175	Instrumental Ensemble	1
MU 180	Saint Vincent College Singers	1
MU 181	Musical Theater Workshop	1
MU 182	Opera Workshop	1
MU 185	Saint Vincent Camerata	1

Additional requirements for voice majors (2 credits):

MU 317	Diction for Singers: Italian, Spanish and Latin	1
MU 318	Diction for Singers: English, German and French	1

#### Typical First-Year Music Major Schedule:

##### Fall Semester (18/19 credits)

MU 090	Recital Attendance	0
MU 108	Music History: Baroque and Classical Periods	3
MU 115	Fundamentals of Music Theory	3
MU 425	Primary Instrument for Music Performance Majors	4
MU	Music Ensemble	1
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Elementary Modern or Classical Language		4
or		
Intermediate Modern or Classical Language		3
MA—	Mathematics	3 or 4
One of the courses listed above will be taken and designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.		

##### Spring Semester (17/19 credits)

MU 090	Recital Attendance	0
MU 109	Music History: Romantic and Contemporary Periods	3
MU 425	Primary Instrument for Music Performance Majors	4
MU	Music Ensemble	1
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Elementary Modern or Classical Language		4
or		
Intermediate Modern or Classical Language		3
MA—	Mathematics	3 or 4
If Mathematics was taken in the fall, then one of the following should be taken:		
HI—	History	3
Social Science		3

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## Course Descriptions

### **MU 090 Recital Attendance**

Because attending live musical performances are a key element of a music student's education, all music majors and minors are required to attend six performances each semester. Students have the opportunity to see, hear and meet internationally acclaimed artists through The Saint Vincent College Concert Series, and four of the six required concerts should be from the Concert Series. The other two concerts may be other performances on or off campus. These concerts should be solo recitals, chamber ensembles, choral concerts, operettas, operas, ballet with live music, or symphony performances. Jazz concerts are also acceptable. The level of proficiency of these concerts should be college level, semi-professional or professional. Many classical venues give discounts on student admissions, and all Department of Fine Arts sponsored concerts are free to Saint Vincent students. Required for all music majors and minors every semester. May be repeated. Offered both semesters. Zero credits.

### **MU 101 Music Appreciation**

A survey of the music of western culture which is frequently generically called classical, but in reality includes Medieval, Renaissance, Baroque, Classical, Romantic, Modern and Contemporary periods. The course is designed to teach students how to listen to music, and how to discuss music's aesthetic nature and purpose. Representative composers and works from the major periods of music will be placed in their historical context, studied and discussed. No prerequisites. Fulfills the Core Curriculum Fine Arts requirement. Offered both semesters. Three credits.

### **MU 106 World Music**

A survey of the music of the world and an introduction to ethnomusicology. Students explore the music of the world through performance analysis, case studies, and listening to live and recorded performances. The course also looks at the cultural aspects of a society and how they effect the music that the society creates. No prerequisites. Fulfills the Core Curriculum Fine Arts requirement. Offered spring semester in even-numbered years. Three credits.

### **MU 108 Music History and Literature: Baroque and Classical Periods**

This course is designed to help the student of music to discover the characteristics of Baroque and Classical styles; to discuss the forms, styles, and compositional techniques of the period; and to identify representative composers and their major works. No prerequisites. Fulfills the Core Curriculum Fine Arts requirement. Offered fall semester. Three credits.

### **MU 109 Music History and Literature: Romantic and Contemporary Periods**

This course is designed to help the student of music to discover the characteristics of Romantic and Contemporary styles; to discuss the forms, styles, and compositional techniques of each period; and to identify representative composers and their major works. No prerequisites. Fulfills the Core Curriculum Fine Arts requirement. Offered spring semester. Three credits.

### **MU 112 Survey of Musical Theater and Opera**

This course offers students the chance to explore the history of opera and musical theater. Aspects of historical performance practice and the study of specific operas and musicals will be covered. The American musical will be discussed in light of historical and cultural developments. No prerequisites. Fulfills the Core Curriculum Fine Arts requirement. Offered spring semester in odd-numbered years. Three credits.

### **MU 115 Fundamentals of Music Theory**

This course consists of a thorough and unified presentation of music principles such as notation, intervals, scales, chords, rhythms and simple piano familiarization. Through interactive classroom and board work, the student will acquire a firm foundation for the study of harmony and all other music courses which follow. Although it is the first music theory course required for all music majors and minors, no prior musical training or knowledge is required so it is equally appropriate for the general student who wishes to gain a basic working knowledge of the fundamentals of music. No prerequisites. Fulfills the Core Curriculum Fine Arts requirement. Offered fall semester. Three credits.

### **MU 125 Instrument Lessons for Non-Majors/Non-Minors**

This instruction is for non-music majors and non-music minors at any skill level. One-half hour (1 credit) or one-hour (2 credits) of individual weekly instruction in piano, organ, voice, guitar, violin, flute, trumpet, French horn, clarinet, saxophone, and trombone is available. Can fulfill the Core Curriculum fine arts requirement if a total of three credits of lessons on the same instrument are taken. Permission of the instructor and chair required. May be repeated. Offered both semesters. Fee. One or two credits.

### **MU 170 Saint Vincent College Choir**

The Saint Vincent College Choir provides students with the experience of singing traditional sacred choral music, and other repertoires, in a disciplined and structured ensemble in liturgical and concert settings. Choral music in a variety of styles and from a broad range of historical periods is studied in preparation for performances, both a cappella and accompanied by orchestra or organ, in the Archabbey Basilica. It is open to all students of the College, but a placement interview is required. Can fulfill the Core Curriculum Fine Arts requirement if a total of three credits of the same ensemble are taken. Permission of the instructor is required. May be repeated. Offered both semesters. Zero or one credit.

### **MU 175 Instrumental Ensemble**

Because ensemble playing is vital for the training of any music student, students are required to participate in instrumental ensembles as these ensembles become available. Can fulfill the Core Curriculum Fine Arts requirement if a total of three credits of the same ensemble are taken. Permission of the instructor is required. May be repeated. Offered both semesters. Zero or one credit.

### **MU 180 Saint Vincent College Singers**

Saint Vincent College Singers is an ensemble that explores the various genres of secular vocal music throughout all periods with an emphasis on popular song and American music. The ensemble is open to majors and non-majors and rehearses once a week. Several concerts are presented each semester. Can fulfill the Core Curriculum Fine Arts requirement if a total of three credits of the same ensemble are taken. Permission of the instructor is required. May be repeated. Offered both semesters. Zero or one credit.

### **MU 181 Musical Theater Workshop**

In this course students participate in every aspect of producing a musical theater production. Aspects of production that will be covered will be musical preparation, stagecraft, and acting. Can fulfill the Core Curriculum Fine Arts requirement if a total of three credits of the same ensemble are taken. Permission of the instructor is required. May be repeated. Offered spring semester. Zero or one credit.

### **MU 182 Opera Workshop**

This course will offer the experience of participating in either an opera scenes program or in a full opera production. Students will

be involved in musical preparation including the correct use of the diction of the language in which the piece is composed. Other aspects covered will be acting, stagecraft, and historical performance practice. Can fulfill the Core Curriculum Fine Arts requirement if a total of three credits of the same ensemble are taken. Permission of the instructor is required. May be repeated. Offered fall semester. Zero or one credit.

#### **MU 185 Saint Vincent Camerata**

The Saint Vincent Camerata, founded in 1968, specializes in the chamber choir repertoire of the Renaissance and Contemporary periods. It is open to all students of the College, as well as to members of the larger community, by audition. Can fulfill the Core Curriculum Fine Arts requirement if a total of three credits of the same ensemble are taken. Permission of the instructor is required. May be repeated. Offered both semesters. Zero or one credit.

#### **MU 205 Sight Singing, Ear Training and Solfeggio I**

This is the first course in learning the ability to sing melodic and harmonic pitches at sight and to be able to recognize these pitches when heard. Melodic and harmonic dictation is included and the study of the effective use of solfeggio syllables, in both rhythmic and tonal articulation, provides a sturdy foundation for a more precise performance of music. Prerequisite MU 115. Offered spring semester in even-numbered years. Three credits.

#### **MU 206 Sight Singing, Ear Training and Solfeggio II**

This is the second course in the series that continues with a more advanced study of the singing of melodic and harmonic pitches at sight. More rigorous melodic and harmonic dictation and a greater facility of solfeggio syllabification enables the student to attain musical precision both rhythmically and tonally, which is essential for the realization of a more mature and professional performance. Prerequisite MU 205. Offered fall semester in even-numbered years. Three credits.

#### **MU 208 Harmony I**

This is a beginning course in Harmony and a continuum of the material learned in Fundamentals of Music Theory. The course extends through harmonic progressions in the major and minor modes, provides an introduction into the principals of voice leading and provides for a continuation of the function and structure of melody including the effective use of non-harmonic tones, chromaticism, the Greek modes and an introduction to figured bass. The student will begin the writing of four-part harmonic examples and be actively engaged in interactive desk and board work throughout the course. Prerequisite: MU 115. Offered spring semester in odd-numbered years. Three credits.

#### **MU 209 Harmony II**

This is a continuation of the study of Harmony and represents an incremental progression of the material learned in Harmony I. The course provides an introduction into the principals of the function and structure of melody, a thorough examination and use of non-harmonic tones, modulation using various approaches, the many functional uses of the Neapolitan 6 chord, the Tonic Six-Four chord, the Diminished 7th chord, the Italian French, German and Swiss Augmented 6th chords, an in-depth study of cadences and culminates in the creation of textured phrasing through harmonic rhythm. The student will be actively engaged in writing extended four-part harmonizations and interactive desk and board work. Prerequisite: MU 208. Offered fall semester in even-numbered years. Three credits.

#### **MU 220 Form and Analysis**

Music is both an aural and temporal phenomenon that is contained within a framework or shape that we call form. Even so-called "free form" works, after the fact, contain a nominal

shape. It is important for the music major and minor to be aware of both the external, or "genre" of these works, as well as, the intricacies of the internal sub-structures that are contained within it. This fosters a better understanding of the meaning of the work and in the process enables the student to be able to discuss and categorize the musical works. A thorough knowledge of music theory and harmony is required for the successful accomplishment of this course. Musical examples in both the recording and score modes will be used and the students will be actively engaged in interactive work both individually and in group, throughout the course. Prerequisite MU 209. Offered spring semester in even-numbered years. Three credits.

#### **MU 225 Secondary Instrument Lessons for Majors/Minors**

This instruction is for the music major or music minor's secondary instrument of study. Individual instruction in piano, organ, voice, guitar, violin, flute, trumpet, French horn, clarinet, saxophone, and trombone. Other instruments of study may be arranged through the department chair. One-half hour (1 credit) or one hour (2 credits) of weekly instruction are possible. Permission of the instructor and chair is required. May be repeated. Offered both semesters. Fee. One or two credits.

#### **MU 317 Diction for Singers: Italian, Spanish and Latin**

This course deals with the correct articulation of diction and the pronunciation of words for singers as they are sung in Italian, Spanish and Latin. Students will learn the International Phonetic Alphabet. Required for all music majors whose primary instrument is voice. Offered as needed. One credit.

#### **MU 318 Diction for Singers: German, English and French**

This course deals with the correct articulation of diction and the pronunciation of words for singers as they are sung in German, English and French. Students will learn the International Phonetic Alphabet. Required for all music majors whose primary instrument is voice. Offered as needed. One credit.

#### **MU 320 Junior Seminar**

This seminar is intended for juniors in the Performing Arts Concentration of the Arts Administration major as a preparation for MU 410 Senior Research Project/Thesis. It will focus on identifying a research topic, and emphasize research techniques, presentation skills, and writing skills. For arts administration majors with performing arts concentration. Offered spring semester, or as needed. Three credits.

#### **MU 325 Primary Instrument Lessons for Majors/Minors**

This private instruction is for music majors and minors studying their primary instrument (organ, voice, guitar, violin, flute, trumpet, French horn, clarinet, saxophone, and trombone) Majors should register for one hour (two credits) of weekly instruction. Minors may register for one-half hour (one credit) or one hour (two credits) of weekly instruction. A jury is required for both majors and minors. May be repeated. Permission of instructor and chair is required. Offered both semesters. Fee. One or two credits.

#### **MU 330 Junior Recital**

Music Performance majors are provided with an invaluable opportunity to perform a solo recital on his or her major instrument during the junior year of study. Required for music performance majors. Offered as needed. Fee. One credit.

#### **MU 350 Independent Study**

Topics of research are chosen and developed by the student with the guidance of the faculty member directing the study. For junior or senior music majors and minors only. May be repeated. Permission of the instructor and chair required. Offered as needed. Variable credit.



### **MU 410 Senior Research Project/Thesis**

Arts Administration majors with a Performing Arts Concentration are required to submit a thesis or project in their senior year. The student will work closely with a faculty member who will serve as the advisor. The finished project will be submitted to a committee for review. For senior Arts Administration majors. Permission of instructor required. Offered fall semester or as needed. Three credits.

### **MU 425 Primary Instrument Lessons for Performance Majors**

This individual instruction is limited to music performance majors studying piano, organ, or voice. Two hours of weekly private instruction. A jury is required. May be repeated. Permission of instructor and chair is required. Offered both semesters. Fee. Four credits.

### **MU 430 Senior Recital**

The Senior Recital is the culmination of the Music Performance major's course of study, providing the challenge and prestige of a solo recital on the major instrument. Required for music performance majors. Offered as needed. Fee. Two credits.

### **MU 550 Internship**

Students may work in a professional setting in order to extend their learning experience beyond college into the professional world of music; relevant experiences can take the form of internships, field work, and cooperative programs, particularly in music studios, music businesses, music schools, music organizations, and music management offices. Students may or may not be paid, depending on the policy of the employer. For junior and senior music division majors and minors only. May be repeated. Offered both semesters. Variable credit.

## **History**

*Timothy Kelly, Chairperson*

*Gilbert M. Bogner; Karen Kehoe; Rene Kollar, O.S.B. (HFA Dean); Tina Phillips Johnson; Susan Mitchell Sommers*

*Adjunct Faculty: Teresa DeFlitch; William Doody; Barry Fulks; Bobbi Watt Geer; Joanna Moyar; David Safin*

*Professor Emeritus: Charles G. Manoli*

### **Department Philosophy**

The philosophy of the Department of History echoes the Mission of the College which offers the commitment to help students acquire a quality liberal arts education and achieve significant career goals. To accomplish this, the Department endeavors to prepare students for graduate or professional school, or for a wide variety of careers. Department faculty focus on working with students to develop their intellectual understanding of both the facts of historical events and their broader significance; and on nurturing students' skills in critical thinking and effective oral and written communication.

Department faculty are invested in the belief that the study of history provides the context necessary for an understanding of our contemporary world. By analyzing historical events, students can more fully appreciate the complexity of human experience. By examining social changes in other times, they develop a broad perspective and the ability to weigh evidence and arguments that are essential for those who live in a rapidly changing world.

The Department of History offers the B.A. degree through programs sufficiently structured to guide the student, yet flexible enough to encourage the development of individual interests.

### **History Learning Objectives**

- Awareness of forces (including, but not limited to, political, economic scientific, philosophic, military, religious, and cultural phenomena) that shape societies and institutions in order to better understand a particular institution's or idea's rise or fall.
  - Identify the particular forces most relevant to the development of an idea or institution, and trace the interactions of those forces through inception, development, transformation and decline.
  - Relate historical forces to one's own growth and the development of various cultures.
  - Understand a work of literature in relation to literary and cultural history.
- Develop students' intellectual understanding of both the facts and historical events and their broader significance.
  - Nurturing students' skills in critical thinking, effective oral and written communication.
  - Students can more fully appreciate the complexity of human experience.
- By examining social changes in other times, they develop a broader perspective.
- Develop the ability to weigh the evidence and arguments that are essential for those who live in a rapidly changing world.
- By the time of graduation, a history major will be able to enter a graduate or professional program, or pursue a career.

### **Requirements for a Bachelor of Arts Degree in History** (See Core Curriculum requirements.)

The History major consists of 36 credits. The balance of the 124 credits required for graduation can be composed of electives or courses required for one or more minors or a second major. Students should choose electives in consultation with their major advisor.



## Major Requirements (36 credits)

### A. Area Studies

History majors are required to complete three of the following areas for a total of 18 credits at the 100 level:

HI 102,103	Western Civilization I and II	6
HI 104,105	Contemporary Europe I and II	6
HI 106,107	Topics in U.S. History	6
HI 108,109	East Asian Societies, Traditional & Modern	6
HI 110,111	English History	6
HI 123, 124	Global History I and II	6

### B. Upper Division History Classes

History majors must take three courses, or nine credits, from the 200 level offerings.

### C. Majors only courses

History majors will be required to take HI 300: The Historian's Profession in either the fall or spring of their sophomore year, HI 301: Junior Research Seminar in their junior year, and HI 302: Senior Writing Seminar in the fall of their senior year.

### D. Non-Western Course Requirement

The History major is required to take one course that is designated non-Western. This is not an additional course, but should be fulfilled by careful selection of either area studies or upper division courses. Courses in this catalog that are designated as non-Western include: HI 108, HI 109, HI 123, HI 124, HI 208, HI 209, HI 224, HI 232, HI 233, HI 245, HI 270, HI 280, HI 281. Most non-Western courses will be offered on a two to four year rotation, so students should be aware of what is available in any given academic year. For an updated list of non-Western courses, consult with your advisor.

## Teacher Preparation for Elementary and Secondary Certifications

### Requirements for Certification in Citizenship (7-12) and Elementary Education

In addition to a major in History and fulfillment of the Core Curriculum, the certification candidate must satisfy the requirements of the Education Department of Saint Vincent College in this *Bulletin*.

### Minor in History

A minor in History consists of 18 credit hours. Six of these credit hours are in fulfillment of Core Curriculum requirements. The remaining 12 credit hours may be taken from any of the 100 or 200 level courses that the History Department offers. The Department requires that three (3) of the 18 credits be at the 200 level.

### Minor in Public History

The minor in Public History consists of 21 credit hours. Required courses are HI 201, HI 202, HI 550 (to be taken in that order) and HI 306 and HI 258. The remaining credits may come from the following course options: AN 230, AR 280, AR 310, HI 307, HI 254. The option list may change as new courses are developed; check with the department chair or your advisor for the most current list.

Recommended courses that would be a good complement to the minor include: HI 106, HI 107, HI 223, AR 102 and AR 200. HI 201 and HI 202 cannot fulfill history major requirements.

### Interdisciplinary Courses

Some semesters the History Department may offer interdisciplinary or cross-listed courses. Students are urged to consult the course listings for each semester on the availability of these courses

### Pre-Law

History majors interested in pursuing law as a career should consult with their academic advisor in the History Department. In addition, students with a major in History are eligible to participate in a cooperative program between Saint Vincent College and Duquesne Law School that allows students to earn their bachelor's degree and Juris Doctor degree in six years. In this program, qualified students who complete their first three years of study at Saint Vincent, fulfilling the Core Curriculum requirements and the requirements for the major, may transfer into the Law Program and complete the requirements for the Juris Doctor in three years. For details, see the explanation of this program in the Pre-Law section of the *Bulletin*.

### Typical First-Year Schedule

#### Fall Semester

EL 102 Language and Rhetoric	3
or	
TH 119 First Theology	3
History Area	3
Classical or Modern Language	3
Social Science	3
Mathematics or 1st Philosophy (PL 101)	3

In the fall semester of the first year, all students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

#### Spring Semester

EL 102 Language and Rhetoric	3
or	
TH 119 First Theology	3
History Area	
Classical or Modern Language	3
Social Science	3
Mathematics or 1st Philosophy (PL 101)	3

Students are strongly urged to complete 1st Philosophy no later than the first semester of their sophomore year. Students are required to complete a Tier 1 Science course by the second semester of their sophomore year. History majors should make their selection from among the offerings designated for non-science majors.

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## Course Descriptions

### HI 102 Western Civilization I: Ancient Greece and Rome

This course explores the early development of Western Civilization by surveying the history of the ancient Greeks and Romans, ca. 800 B.C.– A.D. 500. Topics include: the influence of the older civilizations of the Mesopotamians, Egyptians, and Hebrews; the Mycenaeans and the Trojan War; the rise of Greek city-states; the Persian and Peloponnesian Wars; Alexander the Great and the Hellenistic world; the Roman Republic and the formation of empire; the birth and spread of Christianity; the Roman imperial state; and the disintegration of the Roman world. Three credits.

### HI 103 Western Civilization II: Medieval and Early Modern Europe

This course examines the continuing development of Western Civilization by surveying the history of Europe, ca. A.D. 500 – 1800. Topics include: the Germanic invasions and the transformation of the Roman Empire; Charlemagne and the Carolingian world; the development of church and state in the High Middle Ages; the 12th -century Renaissance; the Crusades; the Black Death; the Italian Renaissance; Reformations and the Wars of Religion; the Age of Exploration; the rise of modern nation-states; the Scientific Revolution; and the Enlightenment. Three credits.

### **HI 104 Contemporary Europe I**

In this course we will focus thematically on the political, social, economic, and cultural development of Europe in the 17th-19th centuries. Lecture topics include: comparisons of different political structures present in Europe and the Americas, the geography of Europe and its colonial possessions, the Scientific Revolution and the Enlightenment, the French Revolution, the Industrial Revolution, national unification movements, Romanticism, liberal revolutions, the growth of science, and the Age of New Imperialism. Extensive use of audio/visuals. Map work. Three credits.

### **HI 105 Contemporary Europe II**

In this course we will focus thematically on the political, social, economic, and cultural development of Europe from the late 19th through the end of the 20th century. Lecture topics include: World War I, the Great Depression, the Spanish Civil War, World War II, Modern Art, the loss of colonies, the Cold War and its aftermath, and European economic and political unification. Explicit comparisons will be made between the different social, economic, and political structures present in Europe and America in the 20th century. We will discuss the geography of Europe and her colonies. Extensive use of audio/visuals. Map work. Three credits.

### **HI 106 Topics in U.S. History to 1865**

This course surveys American History from the Colonial Era to the Civil War. Using a topical approach, the class will read about and discuss a wide variety of topics in the economic, social, political, and intellectual history of the United States. Three credits.

### **HI 107 Topics in U.S. History since 1865**

This course surveys American History from the end of the Civil War in 1865 to recent times. A variety of readings introduce students to questions that historians are asking about the modern history of the United States. Three credits.

### **HI 108 Traditional East Asian Societies**

This course surveys China, Korea, and Japan from ancient times to the year 1600. It offers an introduction to the social, political, religious, and aesthetic ideas that together have formed the foundations of Chinese and Japanese civilizations. Three credits.

### **HI 109 Modern East Asian Societies**

This course covers the histories of China, Korea, and Japan from 1600 to the present. The interaction of these countries with the rest of the world and their modern evolution and development is a central focus. Topics such as communism, the Pacific War, the Cultural Revolution, and the contours of contemporary Asian societies are also considered. Three credits.

### **HI 110 English History to 1485**

This course traces the development of British life and institutions from the Celts to the Tudor Revolution in 1485. The lectures will discuss the following topics: early invasions, Anglo-Saxon society, the Norman Conquest, kingship and the royal prerogative, the growth of common law, the development of Parliament, and the role of the Roman Church in English society. The personality of various monarchs and statesmen will be treated in respect to their contribution to the emergence of systematized government. Three credits.

### **HI 111 English History: 1485 to Present**

This course covers British history from the Tudors to Margaret Thatcher. Areas to be discussed include: the Reformation of Henry VIII and Elizabeth I, the Puritan Revolution, Industrialism, Victorianism, the 20th century welfare state, the rise and decline of the British empire, the position of Great Britain in the 20th century with emphasis on the British rule in Ireland, World War I, and the European Economic Community. Three credits.

### **HI 123 Global History I**

This course surveys the origins, development, development, and decline of the world's early civilizations, empires, and regional states. Taking a comparative approach, it examines complex and diverse societies in relation to each other. What geographic, economic, social and cultural factors molded these societies? How have different peoples interpreted, depicted, and shaped the worlds in which they lived? Three credits.

### **HI 124 Global History II**

This course focuses on the increasing interactions among the world's societies since the 15th century. It begins with the age of Columbus and ends with the contemporary world. Topics include imperialism, industrialization, nationalism, revolution, and war. Three credits.

### **HI 201 Introduction to Public History**

This class explores the connections between historical understanding and the interpretation of history in the public realm. While studying a period of local history in traditional academic sources, students will be introduced to a wide range of professional settings that cater to public audiences of all ages. Students will learn about the opportunities and challenges of presenting history through such varied methods and mediums as archives, museums, historic preservation organizations, historic sites and historical agencies. Through readings, discussion, field trips and projects, the class will explore the development of the field of Public History. This class serves as an introduction to HI 202: Practicum in Public History but can be taken independently. It is limited to freshman and sophomore students unless you have the permission of Dr. Karen Kehoe to enter the class. Three credits.

### **HI 202 Practicum in Public History**

In this course we will apply the research, analysis and writing skills of a historian in order to develop and complete a project for the use and benefit of an audience outside of academia. Students will work as a part of a team and will be responsible for all aspects of the project from defining the purpose of the project to its final presentation to the public. Possible projects include nominations of historic properties to the National Register of Historic Places, the creation of a museum exhibit, the creation of historic tourism guides and brochures, grant writing or an oral history project. Prerequisite: HI 201, Introduction to Public History or permission of instructor and department chair. Three credits.

### **HI 203 Modern Intellectual History**

This course will examine the history of ideas in the West from the Scientific Revolution and Enlightenment through the present. Students will consider intellectual developments in the context of history to more fully integrate their understanding of human events and the ideas that inform them. The focus of this course will be cultural, with extensive use of images, films, and primary texts. Seminar format. Discussion-based. Three credits.

### **HI 205 Priests, Poets, and Peasants: Medieval Thought and Culture**

This course focuses on selected aspects of thought and culture in Western Europe from 500 to 1500, the millennium that has been called the Middle Ages. Lectures, readings, and discussions will cover such topics as monastic life, philosophical thought, church and state, the crusading movement, chivalry and courtly love, peasant life, and the Black Death. The purpose is to introduce students to a fascinating yet often neglected part of the Western cultural heritage. Three credits.

### **HI 207 American Women, American Wars**

A study of the effects of warfare on the history of American women and of the ways that American women have influenced war. We will use class readings from both primary and secondary

sources, discussion, and film analysis to study the lives and influences on women during the American Revolution, the Civil War, World Wars I and II, the Vietnam Conflict, and the modern Gulf Wars. Three credits.

#### **HI 208 Modern China**

This course focuses on late imperial and modern Chinese history from 1600 to the present. It includes study of the Ming and Qing dynasties, as well as the Nationalist and Communist governments of the 20th century. Three credits.

#### **HI 209 Issues in Contemporary East Asia**

This course examines some of the most important issues in the world today: environmental degradation, health and human rights, gender inequities, and international relations. We will explore each of these topics in depth, using historical and contemporary primary and secondary sources, in relation to the countries of East Asia. Three credits.

#### **HI 211 Sword and Siege: War in Medieval Europe**

This course will examine selected aspects of European military history from the 5th through the 15th centuries. Students will study not only military campaigns and technology, but also the interplay between warfare and society during this fascinating period.

Topics will include: the purpose of war; planning and logistics; strategy and tactics; war and religion; war and literature; chivalry; espionage; weapons and armor; military architecture; and peace movements. Three credits.

#### **HI 212 American Women's History**

Women's experience in the past helps us understand the history of the United States. This course will examine the themes that defined women and have helped to determine the shape of women's lives today. The lectures, readings, and films will focus on the ways that women's roles as they relate to family, work, politics, and culture have varied over time. We will consider carefully the ways that women have dealt with the definitions of the feminine that society enforced, and will look especially at how women have altered those norms. The course will emphasize the diverse understandings of those issues. Students can expect to do extensive reading and writing, participate in class discussions, and complete a substantial research project. Three credits.

#### **HI 213 Mystics, Maids, and Monarchs: Women in Medieval Europe**

This course will examine, both collectively and individually, the lives and experiences of women in Europe from the 5th through the 15th centuries. The goal is to understand better how medieval women fit into and occasionally influenced the largely patriarchal society in which they lived. Three credits.

#### **HI 214 Modern Ireland**

This course will introduce the student to the social, political, economic, and religious dimensions of Ireland from the French Revolution to the Hunger Strikes at the Maze Prison. After brief remarks about the Ireland of Cromwell and William III, 19th century Ireland will be presented within the framework of the British Empire. Some topics are: Catholic Emancipation, Daniel O'Connell, the Famine, the problem of the land and agrarian violence, William Gladstone and the crisis of Home Rule, and the career of Charles Stewart Parnell. The second half of the course will discuss the emergence of the Republic of Ireland and the province of Ulster. Lloyd George, Eamon de Valera, the Easter Rising, and the current problems concerning Ulster are the subjects of the lectures. Can Ireland ever become a united island? Three credits.

#### **HI 216 American Colonial History**

This course is designed to give students an in-depth grounding in many of the major issues relating to the creation and development of colonial North America. Placed in an Atlantic World context, we will study the social consequences of colonization, migration, and war in America from 1400-1775. Emphasis is placed on the interaction of British colonies with competing European cultures (French, Dutch, Portuguese, and Spanish) as well as with Native Americans, and with African American slaves. We will explore these interactions through lectures, readings, films and discussions. Three credits.

#### **HI 220 The Devil and the Problem of Evil in Western Thought**

This course is an examination of the problem of evil in Western thought, with special attention to the personification of evil in the devil. We will examine the historical emergence of the devil as a being distinct from God in the ancient civilizations of the Middle East. The course will then consider in turn: The devil in the Old and New Testament; his treatment in the West from medieval Christianity to the Renaissance and Reformation; the impact of the Enlightenment on the problem of evil in western thought; and the modern psychological approach to evil and the question of possession. Three credits.

#### **HI 223 Revolutionary America 1740-1820**

This course will examine the social, political, economic, cultural, and religious ferment in Colonial America that led to the transition from colonies of the British Empire to the revolutionary republic of the United States. The role of women, minorities, and indigenous people, Enlightenment ideology, the Great Awakening, the American Revolution, and the struggle over the Constitution will be highlighted. Western Pennsylvania was the stage for many of these dramatic events and this course will utilize as fully as possible local public history resources having to do with the period from the French and Indian War to the Whiskey Rebellion of 1794. The course will spend several classes on 18th and early 19th century historical interpretation in museums and historic sites and museum methodology, and explore career possibilities in museums and public history. There will also be guest speakers from local historical sites. Three credits.

#### **HI 224 Native American History and Culture**

This course will examine the history and cultures of selected nations of indigenous people who inhabited the North American continent beginning as early as 40,000 B.C. We will look at the sociocultural/religious, political and military history of each nation, the details of everyday life, gender relations and kinship systems, division of labor and economics. Areas of particular concern will be the relationship of indigenous nations to the European populations of America in the colonial period. We will then explore the relationship between the indigenous people of North America and the United States of America from the Revolution to the present. Designated non-Western. Three credits.

#### **HI 226 Society and the Environment: The American Experience**

Students in this course will explore the way that humans have interacted with their environment in what is now the United States from pre-colonial contact to the present day. We will explore two great questions in a number of different times and places, seeking answers that should inform our interaction with the environment today. How and why has society shaped the American environment, and how and why has that environment shaped our social, cultural, economic, and political lives? Finally, we will look at ourselves looking at our interaction with the environment in our focus on the emerging environmental movement of the 20th century. Three credits.

**HI 227 “Bring Out Yer Dead!” The Middle Ages on Film**

This course uses movies as springboards for exploring selected aspects of medieval European society and outlooks. The focus is on the relationship between the ‘real’ Middle Ages, how historians have reconstructed the period using primary sources, and the ‘reel’ Middle Ages, how filmmakers have reconstructed the period for popular consumption. Although the films used may change, in the past they have included “Kingdom of Heaven,” “Lion in Winter,” “The Passion of Joan of Arc,” and of course, “Monty Python and the Holy Grail.” Offered only in selected summer sessions. Three credits.

**HI 228 Twentieth Century America, 1941 to 2008**

Through a study of documents, personal testimony, and written reports on historical problems, and through discussions and lectures, students are encouraged to examine evidence and to think “historically” about persons, events, and movements within the memory of their own and their parents’ and grandparents’ generations. Three credits.

**HI 231 Blood and Roses: England in the Late Middle Ages**

This course explores the history of England during the turbulent 14th and 15th centuries, a time of transformation and upheaval in government, religion, war, and economic life. Topics include the Hundred Years’ War, the Black Death, the growth of parliaments, the Peasant Revolt, the Lancastrian Revolution, the Lollard movement, the Anglo-Scottish struggles, and the Wars of the Roses. Students will thus examine one of Western Civilization’s greatest nation-states during a crucial period in its development. Three credits.

**HI 232 Race and Ethnicity in Historical Perspective**

This course explores the role that the social phenomena of race and ethnicity have played in shaping Americans’ lives in the past 400 years. We will focus on the formal legal structures that Americans established to regulate racial and ethnic experiences (slavery, restrictive covenants, laws, etc.), the less formal but often equally powerful social customs that governed people’s opportunities, the experiences of those who had to navigate those formal and informal structures, as well as the efforts of those who have tried to create a society that lives out the ideals set out in the Declaration of Independence. Designated non-Western. Three credits.

**HI 233 History of Latin America**

This course will trace the history of Latin America from the major pre-Columbian civilizations through the early 19th century. The focus of the course will revolve around the conflict between cultures, their transformation, and creation of new cultures. Discussion topics include: the Maya, Inca and Aztec civilizations, the discovery and founding of Spanish and Portuguese empires in the New World, development and integration of the empires into the world economy, the creation of new American cultures, the struggle for independence, and the problems of the new nations through the 19th century. Extensive use of maps, images, and primary source readings. Three credits.

**HI 236 World War II in Europe**

This is a general course in the history of the European theater of the Second World War. The war’s origins will be studied in some detail, beginning with the tenuous reconstruction of the European state system in the wake of World War I and the rise of the Fascist regimes that challenged this system. The historical, economic, social, and ideological determinants of German expansionism will then be discussed and related to the outbreak of war in Europe. Although much attention will be focused on the evolution of Allied and Axis strategy and the development of the military struggle between 1939 and 1945, the war’s all-encompassing nature necessitates that such topics as propaganda, economic mobiliza-

tion, occupation policies, and the Holocaust also be discussed. The course will conclude with an analysis of war-time diplomacy, the post-war settlement, and the onset of the Cold War. Class instruction will take the form of lectures, discussions, group activities, videos, and other instructional modalities deemed appropriate and effectual by the instructor. Three credits.

**HI 242 Renaissance Europe: 1300 to 1500**

This course will explore the development of the European Renaissance from the late Medieval period through the beginning of the Reformation. The course will explore the “rebirth” of European culture, Arts, Language, Religion, Architecture, Politics, and Literary movements throughout one of the richest historical periods in Western Civilization, the Renaissance. Three credits.

**HI 245 Colonies and Empire: Europe and the World**

This course explores the dynamic of colonialism between the 18th and mid-20th centuries. We will use a global perspective to look at the relationship between European countries and their colonial possessions during and after the colonial era. In particular, we will consider the causes and justifications for colonialism and the acquisition of empire, as well as its economic, religious, social, ethnic, and political implications for both the European and colonial nations. Extensive use of images, films, and maps. Designated non-Western. Three credits.

**HI 247 Catholic and Protestant Reformations**

The general themes of the course will be the continuities and discontinuities of the reform movements of the 16th century (Protestant and Catholic) with the late medieval period, and the relation, variety, and interchange between the various reform movements in different regional and social contexts. Emphasis will be placed on religion in the European context, but some attention will be paid to mission fields, and the impact of the “new world” discoveries on church and society. Three credits.

**HI 248 The History of the Christian Churches I: to 1500**

This course will explore the development of Christianity from the first century A.D. through the end of the Renaissance period. The course will highlight such historical epochs of Christianity as the Apostolic period, the age of the Fathers of the Church, the monastic movement, the men’s and women’s religious movements of the Middle Ages, the Schism between the Eastern and Western Churches and the Church in the Renaissance period. Offered alternate years. Three credits.

**HI 249 The History of the Christian Churches II: 1500 to the Present**

The second part of the course will explore Christianity during the periods of the Protestant Reformation, The Catholic Reformation, religious pluralism, the Enlightenment and Age of Revolutions, 19th century movements in Christianity, the Church and the World Wars, the Second Vatican Council and Christianity in the post-modern world. Offered alternate years. Three credits.

**HI 251 War and Enlightenment: Europe in the Eighteenth Century**

This course deals with the so-called “long” eighteenth-century, which lasted from 1688 (the year of the Glorious Revolution in England) to 1815, the year of Napoleon’s defeat at Waterloo. This was a crucial time, as it brought dramatic changes to the social fabric, political institutions, economies, and cultures of Western Europe. We will look at these developments in some detail, focusing on the Enlightenment, 17th and 18th century political theories and institutions, the rise of the middling classes, and the evolution of modern warfare. Treatment will be both chronological and thematic, with ample use of films, maps and images to help set the scene for historic events. Three credits

**HI 253 Religion and Society: The American Experience**

Opinion polls taken from the 1940s through today report annually that over 90 percent of Americans believe in God. Our earliest institutions, when they were not churches themselves, reflected a strong religious influence. Americans have felt religious competition so keenly in various times in our history that they have rioted in support of one denomination over another. Why was (is) this so? How have Americans experienced, thought about, and manifested their various religious beliefs throughout our history, and how have Americans interacted with fellow citizens of differing beliefs? How has religion influenced the development of our current institutions, and why do Americans believe what they do? This course examines these and other issues connected to American religious development. Three credits.

**HI 254 Documentary History**

This course explores the video documentary as a text that conveys history. Americans increasingly learn their history from video documentaries, but historians are just beginning to address these texts in a sophisticated manner. Students will analyze historical documentaries critically by viewing the videos, reading critical analyses of them, and participating in discussions of these texts. They will then write their own critical analyses of the documentaries. The documentaries that the course examines will vary from semester to semester, but they will mostly be texts designed to convey historical information. Students will also participate in the production of a documentary on a historical event or development. Three credits.

**HI 255 American Economic History**

This course examines the development of the various forms our economy has taken over the past four centuries or so, as well as upon various developments within the economy in the form it takes currently. Though we will discuss the economy as a human social construction, we will also explore other perceptions of the economic organization (is it a “natural” phenomena?) and pay special attention to developing “Catholic” perceptions of the economy and economic life. Three credits.

**HI 257 American Cultural History**

This course explores various American cultural manifestations in historical context. We experience our lives through cultural constructions that mediate our understanding of our world, and this course will target various forms each semester. The specific cultural forms may vary each time the course is taught, but will likely come the broad categories of recreation (sports, games, television, movies, other leisure activities), work (factories, farms, markets, transportation), religion (liturgies, revivals, devotions, sects, holidays), home (family, architecture, neighborhood), art (literature, music, painting and sculpture) and formal public expressions. Three credits.

**HI 258 Pennsylvania History**

This course explores the development of Pennsylvania from the pre-European era to current times. The topics covered will include the diversity of the Commonwealth, Pennsylvania's key roles in the development of the United States, and the sources and methods that can be used to uncover the history of the state. Three credits.

**HI 259 The Civil War in the United States**

Students in this course will study the period leading up to and away from the Civil War, focusing on those areas commonly known as the ante-bellum period, the Civil War, and Reconstruction. We will address slavery, culture, and social change in the nation in the early part of 19th century, explore the political efforts to deal with these contentious areas, and study the

military manifestation of that political divide. Finally, we will explore the world the war made as we study the Reconstruction era. The course will require extensive reading, discussion, and much formal writing, culminating with a substantial research paper. Three credits.

**HI 264 Horses, Hardtack, and Heroes: The American Civil War in Film and Literature**

This course uses Hollywood films and literature to explore some of the major themes and events of the American Civil War. Film is a major influence in mass culture and has helped to create and disseminate messages about the past. We will examine the strengths and the limitations of film and popular literature as conveyors of the truth about the past. Three credits

**HI 265 Women in the World**

The participation of women in the societies of the world has frequently been manipulated by the various components of those societies. This course considers the way that women's lives have been manipulated by some of those components; for instance, the state, science, and economic forces across the world. In a seminar format we will use scholarly writings, eyewitness accounts, official documents, and visual evidence to explore the ways women have been influenced by the world around them and the ways they have influenced that world.

**HI 267 Houses and Highrises: Industrialization and Experience in the Gilded Age**

In 1913, Ezra Pound celebrated the Manhattan skyline: “Squares and squares of flame, set and cut into the ether. Here is our poetry, for we have pulled down the stars to our will.” As Americans entered the twentieth century, there was a growing gap between those who shared Pounds’ outlook and those who were left in the dark. This course will use the built environment and material culture, in addition to traditional sources and digital history, to explore the decades leading up to Pound’s observation. Students will uncover how and why America moved away from its agrarian past by analyzing different experiences of industrialization through major themes of the era, including business and labor, poverty, political corruption, Imperialism, and racism. Issues of modern day interpretations of the era and relevance to current events also will be discussed. Three credits.

**HI 268 Benedictine Europe**

The course follows the growth of European culture and religion through the lens of the Benedictine Order, highlighting the contributions of monks and nuns, abbeys and priories, from the end of the early middle ages through the beginning of the Reformation period.

**HI 270 The Rise of Chinese Civilization**

This course will offer an in-depth survey of China's history from the Neolithic age to 1600, and focus on the political, social, and religious evolution of Chinese civilization and how it interacted with its neighbors over time. HI 108 recommended precursor. Three credits.

**HI 274 China and Japan in Fiction and Film**

This course examines political, social, and cultural changes in Japan and China through the lens of literature and film. The class will center on discussions of common themes in the texts and films, including gender ideals and ideologies, narratives of heroes and redemption, violence as an art form, production of national myths, and the role of historical forces in shaping past and contemporary national identities.



### **HI 280 Islamic Civilization I**

Islamic Civilization will examine the religion, politics and culture of the Islamic world from pre-Islamic Arabia, through the 13th century Mongol invasions. Special attention will be paid to the life of the Prophet, beliefs, practices and divisions within Islam, the Caliphate, the Umayyad and Abbasid empires and successor states, historic areas of contact and conflict between Islam, Christianity and Judaism. Treatment will be both chronological and thematic, with use of films, maps and images to help set the scene for historic events. Three credits.

### **HI 281 Islamic Civilization II**

This course is designed as a stand-alone complement to HI 280. Islamic Civilization II will examine the religion, politics, and culture of the Islamic world from the Mongol invasion of the 13th century, the rise of the Turkic peoples, the development and decline of the Ottoman Empire, through its fall at the end of WWI. Time permitting, the course will examine the independence of Middle Eastern territories, and the foundations of nationalism as a force in modern Islamic countries. Treatment will be both chronological and thematic, with use of films, maps and images to help set the scene for historic events. Three credits.

### **HI 300 The Historian's Profession**

History majors will take this introduction to the profession in the fall or spring semester of their sophomore year. In the course, students will become acquainted with varieties of internships and career paths available to history majors. Students will also receive intensive instruction in basic research methods for historians, including such things as developing a research plan, thoroughly learning the library's layout, becoming familiar with finding aids, using historical journals, understanding ILL, evaluating and using the Internet as a research tool, proper use of primary and secondary sources, and mastering citation practices. Finally, students will become familiar with ethical issues and expectations related to historical writing and careers. Majors only. Three credits.

### **HI 301 Junior Research Seminar**

History majors will take this the spring semester of their junior year. The purpose of this seminar is two-fold. The primary goal will be for the student to prepare to write the senior thesis. Students will be asked to identify a research topic of interest, and then develop a viable thesis topic. Following that, students will complete preliminary source identification, write a literature review (historiographic essay), thesis outline, and bibliographies. By the end of the semester, students will be well poised to complete the thesis in HI 302 the following fall term. The second goal of the Junior Research Seminar will be the mastery of types of writing typically encountered in the profession, as well as conventions and considerations that go along with historical scholarship and writing. Majors only. Three credits.

### **HI 302 Senior Writing Seminar**

History majors will take this course in the fall semester of their senior year. The purpose of this seminar is to produce a scholarly piece of research and writing. The senior project, or thesis, must be organized around a scholarly thesis statement or question, utilize appropriate primary and secondary sources, and adhere to the conventions of historical writing learned in HI 300 and HI 301. The thesis will be completed by the end of the fall semester. Students will have the opportunity to present a version of the final project at spring conferences or colloquia. Majors only. Three credits.

### **HI 306 Introduction to Nonprofit Organizations**

The purpose of the Introduction to Nonprofit Organizations course is to familiarize students with the structure, unique characteristics, and operating environment for nonprofit organizations. The course will offer a broad overview of the nonprofit sector, particularly the centrality of the mission statement in planning and decision making, working with volunteer boards of directors, accountability and ethics, fund raising and financial management. This course does not fulfill history core requirements, or history major 200 level requirements. This course does fulfill public history minor credit requirements and elective requirements. Three credits

### **HI 307 Introduction to Nonprofit Funding**

An essential function for all nonprofits is to strategically determine revenue sources and develop effective mechanisms to raise funds. This purpose of this course is to provide students with a brief history of philanthropy, familiarize them with the principles of fundraising and to help them develop skills and competency in fundraising methods—special events, direct mail, major gifts, grant writing, capital campaigns and planned giving—within a competitive funding environment. It is appropriate for students who may work or volunteer with nonprofits in the future as well as for those who are currently working with nonprofits organizations in a staff or volunteer capacity. This course does not fulfill history core requirements, or history major 200 level requirements. This course does fulfill public history minor credit requirements and elective requirements. Three credits.

### **HI 350 Independent Study**

May be repeated. Course requirements to be developed in consultation with supervising faculty. Variable credit.

### **HI 550 History Internship**

Professional work experience in the community, which complements and strengthens academic in-class learning. Academic credit is variable depending on the nature and duration of the experience. Students may or may not be compensated depending on the company/ agency. Students must receive departmental approval to participate. This course will additionally serve as the capstone course in the Public History Minor. May be repeated. Variable credit.

# International Studies Minor

Contacts: Doreen Blandino, Tina Phillips Johnson

Minor in International Studies with an area concentration in French, German, Italian, Spanish, or Chinese: 24 credits

The Department of Modern and Classical Languages sponsors the minor in International Studies. The minor consists of either a concentration for the Liberal Arts major or a minor with a language and culture area concentration. The primary purpose of the minor in International Studies is to give participants a global awareness and a broader perspective of the modern world. A secondary purpose is the development of skills and abilities in speaking, writing, and reading a second language in order to enhance cross-cultural understanding. We strongly encourage students who minor in International Studies to consider study abroad.

## Requirements for a minor in International Studies (24 credits): Required courses (18 credits)

Two language courses at the 300 level or above for French, German, Italian, or Spanish. One course must be in either Culture and Civilization or Contemporary Cultures in relation to area of concentration.

For Chinese, 6 credits of language at the 200 level or above. 6

SO 106 Sociology and Global Issues 3

PS 242 International Relations 3

HI 123 or 124 Global History I or II 3

One history course from the following in relation to area of concentration (3 credits): (Only one 100-level HI course will count toward core requirements).

HI 102 or 103 Western Civilization I or II 3

HI 104 or 105 Contemporary Europe I or II 3

HI 108 or 109 Traditional or Modern East Asian Societies 3

HI 205 Medieval Thought and Culture 3

HI 209 Issues in Contemporary East Asia 3

HI 233 History of Latin America 3

HI 270 The Rise of Chinese Civilization 3

HI 280 Islamic Civilization I 3

Two courses from the following in relation to area of concentration (6 credits):

AN 222 Cultural Anthropology 3

AN 225 Anthropology and World Art 3

AN 242 Anthropology of Religion 3

AN 328 Anthropology and Communication/Linguistics 3

AR 200 Pre-Columbian Art and Architecture 3

AR 390 Non-Western Art Seminar 3

BA 250 Global Business Management 3

BA 251 International Business 3

BA 395 Global Marketing 3

BA 470 International Accounting 3

EC 351 International Trade and Development 3

EC 353 International Finance 3

EL 122 African Studies 3

EL 145 Multi-Ethnic Literature of the United States 3

HI 211 Sword and Siege: War in Medieval Europe 3

HI 213 Mystics, Maids, and Monarchs: 3

Women in Medieval Europe 3

HI 232 Race and Ethnicity in Historical Perspective 3

PL 303 Eastern Thought 3

PS 341 Global Terrorism 3

PS 343 Comparative Politics 3

SO 200 Race and Ethnicity 3

TH 380 World Religions 3

TH 385 Buddhism 3

Additions and substitutions may be made with consent of advisor.

# Liberal Arts

Alice Kaylor, Director

Doreen Blandino; Thaddeus Coreno, Denise Hegemann, John Smetanka; Richard D. Wissolik.

The following faculty members have participated in the program as readers for Liberal Arts projects since 2007: David Carlson, O.S.B.; Thomas Cline; Bettie Davis; Denise Hegemann; William Hisker; Timothy Kelly; Richard Kunkle; Jennifer Koehl; Michael Rhodes; Kristine Slank; Peggy Smith; Cynthia Walter; Bradley Watson

*A liberal education is the education which gives a man a clear, conscious view of his own opinions and judgment, a truth in developing them, an eloquence in expressing them, and a force in urging them. It teaches him to see things as they are, go right to the point, to disentangle a skein of thought, to detect what is sophisticated, and to disregard what is irrelevant. It prepared him to fill any post with credit, and to master any subject with facility.*

— John Henry Cardinal Newman.

## Program Philosophy

The Liberal Arts Program offers the student the opportunity for a general education with enough specialization to provide a focus for individualized interests and development. The key operating principle throughout the program is self-design which means that the student together with a faculty advisor is able to develop a personalized course of studies. While a student chooses one area of specialization through a minor in a traditional department, the concentration is constructed from either an interdisciplinary specialization or from one academic field. The self-designed nature of the major allows the student to have a greater degree of engagement in and sense of responsibility for learning. Ultimately, the student will be able to satisfy personal and intellectual needs and achieve future career goals. The Liberal Arts student is also encouraged to participate in cooperative education, internship, and study abroad experiences which compliment the academic program.

The Program fosters the idea that education is environmental rather than compartmental, general before it can be specific. The faculty views the program to be an excellent preparation for further study in professional and graduate schools and for such areas as elementary and secondary education, and for careers in social services, the legal field, professional health and business. The rationale for this: a person who learns how to discover, evaluate and develop a problem, how to secure the information required by these processes and why he or she does so at all is well prepared to live in a humane and valuable way. Finally, the program is just as concerned that the plumber, the carpenter or factory worker be poet, mathematician or philosopher and be able to create with the help of these disciplines a more meaningful life. For the primary question is always: What is man? What does it mean to be?

## Liberal Arts Learning Objectives

The Liberal Arts major is interdisciplinary in nature and serves students with varied academic interests.

Liberal Arts majors will have the opportunity to:

- Integrate the skills and knowledge acquired in the major; that is, the minor concentration and required Liberal Arts courses.
- Develop public speaking skills.
- Demonstrate competency in written communication.
- Demonstrate information literacy.
- Think critically and analytically.

## Requirements for a Bachelor of Arts Degree in Liberal Arts

(See Core Curriculum requirements.)

### Liberal Arts Major Requirements (61 credits):

Physics*	4
Fine Arts*	3
Upper-Level Writing Course**	3
AN 101 Introduction to Anthropology	3
or	
AN 222 Cultural Anthropology*	3
PY 100 Introduction to Psychology**	3
LA 200 Methods and Techniques of Research	3
LA 250 Seminar: Readings in Liberal Arts	3
LA 325 Senior Seminar for Liberal Arts majors	3
Concentration***	18
Minor***	18
Total	61

\*These are specific requirements for the major and do not satisfy the core.

\*\*A major requirement which will satisfy the core.

\*\*\*A maximum of six (6) credits from the concentration and/or minor may be used to fulfill core curriculum requirements.

### The Concentration

In consultation with the faculty advisor, the Liberal Arts major will design a concentration. The 18-credit concentration may be achieved in one of two ways: vertical or horizontal. The vertical concentration is defined by an existing traditional academic discipline such as history, modern language, sociology or biology. In selecting a vertical concentration, the student may include only one introductory or survey level course, i.e., SO 101 Introduction to Sociology. A horizontal concentration is interdisciplinary. As with the vertical concentration, the student may only include one introductory or survey level course in the horizontal concentration.

The student, with the guidance of the faculty advisor, identifies the form of the concentration and the courses which will comprise it. The theme and form of the concentration is determined in the fall semester of the junior year.

In addition to the self-designed option, the student may choose to fulfill the requirement by completing one of the following suggested concentrations: Quantitative Studies, Media Studies, Business Studies, Cultural Studies and American Studies.

### Cultural Studies

Modern Language 300 level courses	6
History (200 level that corresponds to the language)	3
AN 328 Linguistic Anthropology	3
EL 138 Multi-Ethnic Literatures of the U.S.	3
TH 380 World Religions	3
Total	18

### American Studies

HI 106 or 107 Topics in U.S. History	3
EL 131 American Literature: Exploration to Civil War	3
or	
EL 132 American Literature: Civil War to Present	3
TH 362 Religion in America	3
SO 200 Race and Ethnicity	3
PS 290 Institutions	3
PL 216 Ethical Problems	3
Total	18

### Quantitative Studies

MA 109 Calculus I	4
MA 110 Calculus II	4
PY 203 Statistics I	3
PY 204 Statistics II	3
Select one of the following:	
PH 112 and PH 114 General Physics II and Lab	4
BL 152 and BL 153 General Biology II and Lab	4
CH 102 and CH 104 General Chemistry II and Lab	4
Total	18

### Media Studies

CA 100 Introduction to Mass Media	3
CA 130 Introduction to Media Production	3
CA 235 Introduction to Web Design	3
CA 285 Publication Production	3
CA 230 Writing for Media	3
EL 108 Technical Writing	3
Total	18

### Business Studies

BA 100 Financial Accounting I	3
BA 101 Financial Accounting II	3
BA 104 Introduction to Management	3
EC 101 Principles of Economics, Micro	3
or	
EC 102 Principles of Economics, Macro	3
BA 305 Business Ethics	3
BA 320 Corporation Finance I	3
Total	18

### Pre-Health Studies

CH 101-104 General Chemistry I and II	8
MA 109 Calculus I	4
CH 221-224 Organic Chemistry I and II	8
PH 111-114 General Physics I and II	8
Total	28

Students who select this concentration must fulfill the requirements for a biology major.

### The Academic Project

In the final semester of study the student must present an academic project done in the field of his or her concentration and/or minor. Because it is the culminating activity for the Liberal Arts major, the ideal project combines the concentration and the minor. The project may take any number of forms: thesis, essay, intellectual journal, poetry, the short story, the novel, stage design, art exhibit, and physical or social science research. The sequence for the senior liberal arts projects is as follows:

#### Fall Semester, Junior Year

The work for the academic project begins in the first semester, junior year, when the Liberal Arts major is required to take LA 200 The Methods and Techniques of Research. The course begins the sequence of Liberal Arts courses that all majors will complete. Students are introduced to the techniques of research. Class work is directed towards the Liberal Arts project and provides the students with the opportunity to clarify their research project so that by the end of the course, they have identified a topic area for their project and have completed preliminary research for it. By the end of the semester, each student will have completed a preliminary annotated bibliography. The student will present for approval the plan of studies for the Liberal Arts major, that is, the courses included in the minor and the courses which comprise the concentration to the faculty during a formal presentation.

#### Spring Semester, Junior Year

The second semester junior enrolls in LA 250 Seminar: Readings for Liberal Arts Majors. The student will continue to work on the development of the topic and form of project. The student will select two readers for the project and they may be members of the Liberal Arts faculty, the College faculty, or from the professional community at large. The first reader will focus on the academic content while the second reader will assist the student with style and mechanics. The student will work with first reader to identify additional sources for the project. Final approval for the academic project will be given by the Liberal Arts Faculty following a formal presentation by the student. LA 250 will focus on the academic disciplines represented by the participants' minors and

concentrations. In addition to proposal development, the course will focus on reading and analyzing representative reading selections.

### Summer Following Junior Year

The student is expected to complete any necessary additional research and to begin the draft of the thesis. It is an expectation that the student will continue to communicate with both readers during the summer and forward to them finished sections of the project for review.

### Fall Semester, Senior Year

The first semester senior will enroll in LA 325 Senior Seminar for Liberal Arts Majors. For LA 325, the student will make regular presentations of the work being completed on the project. The course will include writing workshops and peer review. The final draft of the project is due by 4:00 p.m. on the last class day of the fall semester. One copy of the project is submitted to the Director of the Liberal Arts Program and copies are also submitted to the first and second readers.

### Spring Semester, Senior Year

Once the readers have reviewed the final draft of the project, both copies are returned to the student for final corrections and revisions. The approved bound thesis is due no later than March 1 of the senior year. The student will participate in the College's Annual Academic Conference in April. There are no exceptions to this due date. Anyone who does not meet the deadline will be ineligible for May graduation.

### Typical First-Year Schedule

#### Fall

TH 119	First Theology	3
or		
EL 102	Language and Rhetoric	3
Modern Language		3
PY 100	Introduction to Psychology	3
or		
History (100-124)		3
Natural Science		4
Social Science		3
Total		16

All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

#### Spring

TH 119	First Theology	3
or		
EL 102	Language and Rhetoric	3
Modern Language		3
MA 104	Elementary Functions	3
History (100-124)		3
AN 101	Introduction to Anthropology	3
Total		15

### Physical Therapy and Physician Assistant

The Physical Therapy cooperative program between Saint Vincent College and Duquesne University School of Health Sciences is a six-year entry level doctoral program. Upon successful completion of the fourth year, students who have not already earned a Bachelor's degree will be awarded a Bachelor of Science or a Bachelor of Arts in Liberal Arts from Saint Vincent College. Upon successful completion of the sixth year, students will be awarded a Doctor of Physical Therapy degree from Duquesne University. Graduates will be eligible to sit for state licensure examinations.

The Physician Assistant cooperative program between Saint Vincent College and Duquesne University School of Health Sciences is a six-year master's degree program. Upon successful completion of the fourth year, students who have not already earned a Bachelor's degree will be awarded a Bachelors of Liberal Arts in Liberal Arts from Saint Vincent College.

A Liberal Arts major is an option at Saint Vincent College. For more information contact the Program Director.

## Course Descriptions

### LA 200 Methods and Techniques of Research

This course (which begins a sequence of Liberal Arts courses) that majors take during the junior year, is designed to introduce students to the techniques of research, which include, but are not limited to: library use, evaluation of sources, research methodology, and proper citation of materials. Class work, directed towards the liberal arts project, will provide the students with the opportunity to clarify their research project so that by the end of the course, students will have a topic area for their project and will have completed preliminary research for it. In addition, students will complete work on designing their concentration and selecting their minor. Three credits.

### LA 250 Seminar: Readings for Liberal Arts Majors

The seminar will focus on the development of the topic and form of the project and will culminate individual student presentations to the Liberal Arts Faculty who will approve their project proposals. Further, this reading seminar will focus on the academic disciplines represented by participants' minors and concentrations. Students will study and analyze representative reading selections in the framework of class presentations, class discussions and written reports. Spring semester. Three credits.

### LA 325 Senior Seminar for Liberal Arts Majors

This course is designed for the student who is in the final stages of the Liberal Arts Project. The course will utilize a workshop format and class meetings will focus on the stylistic and technical aspects of the senior project. Fall semester. Three credits.

### LA 350 Independent Study

May be repeated. Variable credit.

### LA 550 Liberal Arts Internship

Professional work experience in the community which complements and strengthens academic in-class learning. Academic credit is variable depending on the nature and duration of the experience. Students may or may not be compensated depending on the company/agency. Students must receive departmental approval to participate. May be repeated. Three credits.

# Mathematics

Michael W. Botsko, Chairperson

Daniele Arcara; Norman W. Hipps, O.S.B.; Christina M. Safranski;  
Larry J. Mismas

Adjunct Faculty: Donna Botsko; Rachel Kurdziel; James Novak;  
Paul Whiteside

Professor Emeritus: Richard A. Gosser

Mathematics, the study of numbers and shapes, and the language of the physical sciences, has emerged from its classical roots as the principle tool for the analysis and comprehension of many current problems. Chaos and fractals, cryptography, data compression algorithms, tomography, and turbulence are only a few of the many areas currently studied by mathematicians. In addition, promising research continues to be done in the fields of Analysis, Topology, Algebra, and Number Theory. These exciting areas of study all utilize the fundamentals of mathematics within a rigorous logical structure.

The Department of Mathematics prepares the student by teaching the ability to comprehend and use the language of mathematics. Students will come to appreciate the logical structure and beauty of the mathematical development. The student will come to formulate the needed mathematical methods to analyze and solve real problems.

The courses offered prepare mathematics majors for graduate studies, research, engineering, teaching, and positions in industry and government. They also provide the necessary background for students in engineering and the social and physical sciences. Finally, the courses allow for the study of mathematics for its own sake.

As a culminating activity mathematics majors must take Abstract Algebra I or Real Analysis I during the first semester of their senior year. The following charts give the course schedule for students pursuing either a Bachelor of Arts degree or a Bachelor of Science degree in Mathematics.

## Mathematics Learning Objectives

- Students earning a degree in mathematics will know the definitions of fundamental concepts and the major theorems of the core areas of undergraduate mathematics as outlined in course syllabi.
- Students earning a degree in mathematics will be able to prove various propositions in the core areas of undergraduate mathematics and will appreciate the need for a rigorous proof.
- Students obtaining a degree in mathematics will be able to analyze and solve problems in the core areas of undergraduate mathematics.
- All students at Saint Vincent College will have a working knowledge of at least one mathematical "language" (beyond their entry level) and its inherent tools as well as an appreciation for both the utility and beauty of mathematics.

## Teacher Preparation

Departmental requirements: four (4) credits each of physics and chemistry, three (3) credits of logic, three (3) credits of ethics, three (3) credits of fine arts, three (3) credits of intermediate writing, three (3) credits of literature and the following courses in mathematics: MA 111, 112, 113, 114, 115, 201, 206, 208 and 210.

Students who want to elect the teacher certification option must contact the Chairperson of the Education Department at their earliest possible convenience. Additional information is given under the Education Department.

## Requirements for a Bachelor of Arts Degree in Mathematics

(See Core Curriculum requirements.)

Major Requirements (60 credits)		
MA 111-112	Calculus I**, II	8
MA 113	Calculus III	4
MA 114	Ordinary and Partial Differential Equations	4
MA 115	Linear Algebra	3
MA 201-202	Abstract Algebra I, II	8
MA 203	Complex Variables	3
MA 204	Topology	3
MA 206-207	Real Analysis I, II	8
PH 111-112	General Physics I, II*	6
PH 113-114	General Physics Laboratory I, II*	2
CH 101-103	General Chemistry I and Laboratory#	4
CH 102-104	General Chemistry II and Laboratory	4
CS 110	Computing and Information Science I	3

\*General Physics I with Laboratory fulfills a Core Curriculum requirement.

#General Chemistry I with laboratory also fulfills a Core Curriculum requirement.

\*\* Calculus I is a 4 credit course with 3 credits fulfilling the mathematics core.

## Suggested Electives

BA 100-101	Financial Accounting I, II	6
CS 170	Discrete Structures I	3
CS 270	Introduction to Numerical Computation	3

The schedule listed below is intended as a guide to help students plan courses.

## Requirements for a Bachelor of Science Degree in Mathematics.

(See Core Curriculum requirements.)

## Major Requirements (63 credits)

MA 111-112	Calculus I**, II	8
MA 113	Calculus III	4
MA 114	Ordinary and Partial Differential Equations	4
MA 115	Linear Algebra	3
MA 201-202	Abstract Algebra I, II	8
MA 203	Complex Variables	3
MA 204	Topology	3
MA 206-207	Real Analysis I, II	8
MA 208	Probability and Statistics	3
or		
MA 223	Mechanics: Statics	3
PH 111-112	General Physics I, II*	6
PH 113-114	General Physics Laboratory I, II*	2
CH 101, 103	General Chemistry I and Laboratory	4
CH 102, 104	General Chemistry II and Laboratory	4
CS 110	Computing and Information Science I	3

\*General Physics I with Laboratory fulfills a Core Curriculum requirement.

#General Chemistry I with laboratory also fulfills a Core Curriculum requirement.

\*\* Calculus I is a 4 credit course with 3 credits fulfilling the mathematics core.

## Suggested Electives

BA 100-101	Financial Accounting I, II	6
CS 170	Discrete Structures	3
CS 270	Introduction to Numerical Computation	3



## Requirements for Minor in Mathematics (18 credits)

MA 111	Calculus I	4
MA 112	Calculus II	4
MA 113	Calculus III	4
Two courses elected from the following list, one of which must not be in Analysis*.		
<b>MA 114</b>	<b>Ordinary and Partial Differential Equations</b>	<b>4</b>
MA 115	Linear Algebra	3
MA 117	Methods of Proof	3
MA 201	Abstract Algebra I	4
MA 202	Abstract Algebra II	4
<b>MA 203</b>	<b>Complex Variables</b>	<b>3</b>
<b>MA 204</b>	<b>Topology</b>	<b>3</b>
<b>MA 206</b>	<b>Real Analysis I</b>	<b>4</b>
<b>MA 207</b>	<b>Real Analysis II</b>	<b>4</b>
MA 208	Probability and Statistics	3

\*The courses in bold are in the field of Analysis.

## Typical First-Year Schedule

### Fall Semester

MA 111	Calculus I	4
CH 101, 103	Chemistry	4
Intermediate Language I		3
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
History		3

All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

### Spring Semester

MA 112	Calculus II	4
CH 102, 104	Chemistry	4
Intermediate Language II		3
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
History		3

## Engineering

Saint Vincent College, in conjunction with University Schools of Engineering, offers a five-year cooperative liberal arts and engineering program. The student normally spends three years at Saint Vincent College, during which time studies concentrate on liberal arts subjects and the general science prerequisites for an engineering major, and then, in two years at the engineering college, fulfills the remaining engineering requirements. Upon satisfactory completion of all coursework at Saint Vincent College\* and recommendation by the Mathematics Department, students are guaranteed of acceptance at Pennsylvania State University.\*\* Saint Vincent College also has formal agreements with The University of Pittsburgh and The Catholic University of America.\*\*\* Under these programs The University of Pittsburgh and The Catholic University of America each will admit up to eight (8) qualified students from Saint Vincent College per year. At The University of Pittsburgh some departments may require Summer Term attendance prior to the student's first fall term at Pitt and/or an additional term or year of course work. Upon recommendation by the Mathematics Department, students have also been accepted at such schools as Boston University, Carnegie-Mellon University, M.I.T., University of Detroit, Drexel University and Lehigh University.

Under this program the student receives two degrees: a Bachelor of Arts degree from Saint Vincent College and a Bachelor of Science degree in the appropriate branch of engineering from the engineering college. Students in the 3-2 engineering program may graduate from Saint Vincent College after successful completion of 45 credits from their engineering school excluding co-ops. No grade below a full C is transferable to an engineering school.

The engineering colleges to which Saint Vincent students may transfer offer programs of courses leading to the degree of Bachelor of Science in Aerospace, Bioengineering<sup>1</sup>, Chemical<sup>2</sup>, Civil<sup>3</sup>, Computer Engineering, Electrical<sup>4</sup>, Industrial<sup>5</sup>, Mechanical<sup>5</sup>, Mining<sup>3</sup>, Petroleum<sup>3</sup>, Metallurgical, and others.

Students in the 3-2 Engineering Program are required to maintain a grade point average of 2.8 or above while at Saint Vincent College. In the event that the student drops from the engineering program before receiving an engineering degree, the student must return to Saint Vincent and follow the normal mathematics program in order to obtain a degree.

The 3-2 engineering student is required to complete the entire junior year at Saint Vincent and as a culminating activity must pass a comprehensive exam in the sixth semester.

\* Students in the 3-2 Engineering Program are required to maintain a grade point average of 2.8 or above while at Saint Vincent College.

\*\* Students transferring to Pennsylvania State University must maintain a grade point average of at least 3.00 at Saint Vincent College. Aerospace Engineering, Bioengineering, Chemical Engineering, Civil Engineering, Industrial Engineering and Mechanical Engineering are not available at Penn State.

\*\*\*Students transferring to The Catholic University of America will take one further course in religion and religious education beyond the three Theology courses completed at Saint Vincent College.

<sup>1</sup> Students intending to major in Bioengineering should take General Biology: BL 150-152 and Organic Chemistry: CH 221, 223.

<sup>2</sup> Students planning to major in Chemical Engineering should take Organic Chemistry: CH 221-224 and Physical Chemistry: CH 231.

<sup>3</sup> Students planning to major in Civil Engineering, Mining Engineering, or Petroleum Engineering should take Physical Geology: ES 106, 107.

<sup>4</sup> Students intending to major in Electrical Engineering should take Electrical Circuits and Electronics: PH 251.

<sup>5</sup> Students planning to major in Civil Engineering, Industrial Engineering, or Mechanical Engineering at Penn State must take a course in strength of materials. Such students should also take Thermodynamics: PH 215.

## Requirements for a Bachelor of Arts Degree in

### Engineering/Liberal Arts: Core Requirements (50 credits)

History		6
PL 101	1st Philosophy	3
Philosophy		3
EL 102	Language and Rhetoric	3
English+		3
TH 119	First Theology	3
Theology		3
Foreign Language		6
Social Studies		3
Economics		3
Natural Sciences*		8
Fine Arts		3
Mathematics*++		3

\*Major requirements will fulfill the Natural Sciences and Mathematics requirement.

+Students transferring to Pennsylvania State University must take Technical Writing (EL 108). Such students must also take a three credit course in Speech.

++Students transferring to the University of Pittsburgh should also take Probability and Statistics: MA 208.

MA 111-112	Calculus I**, II	8
MA 113	Calculus III	4
MA 114	Ordinary and Partial Differential Equations	4
MA 115	Linear Algebra	3
MA 203	Complex Variables	3
MA 213	Seminar for Engineers	1
MA 221	Engineering Drawing	3
MA 223	Mechanics: Statics	3
MA 224	Mechanics: Dynamics	3
PH 111-112*	General Physics I, II	6
PH 113-114	General Physics Laboratory I, II	2
PH 211	Modern Physics	3
PH 213	Modern Physics Laboratory	1
CH 101, 103#	General Chemistry I and Laboratory	4
CH 102, 104	General Chemistry II and Laboratory	4
CS 270+	Introduction to Numerical Computation	3

\*General Physics I with Laboratory fulfills a Core Curriculum requirement.

#General Chemistry I with laboratory also fulfills a Core Curriculum requirement.

\*\*Calculus I is a 4 credit course with 3 credits fulfilling the mathematics core.

+Students who are planning to transfer to the University of Pittsburgh may take CS 110 instead of CS 270.

### 3-2 Engineering Program (B.A. only)

The schedule below is intended as a guide to help students plan courses.

#### Typical First-Year Schedule

##### Fall Semester

MA 111	Calculus I	4
CH 101	General Chemistry I	3
CH 103	General Chemistry I Laboratory	1
Modern or Classical Language		3
TH 119	First Theology	3
or		
EL 102	Language and Rhetoric	3
HI—	History	3

All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

##### Spring Semester

MA 112	Calculus II	4
CH 102	General Chemistry II	3
CH 104	General Chemistry II Laboratory	1
Modern or Classical Language		3
TH 119	First Theology	3
or		
EL 102	Language and Rhetoric	3
HI—	History	3

## Course Descriptions

### MA 102 Mathematics for Teachers

A course designed specifically for prospective teachers in K-12 schools. The goal is to help students better comprehend and apply mathematical concepts and principles in the content strands of geometry, number systems, data analysis and statistics, and problem solving. Students will be introduced to a variety of materials, activities with physical manipulatives and computer models, and various types of software as tools for teaching and learning. The course focus will include emphasis from the national standards and Pennsylvania standards for mathematics as well as state standards for other certification areas that include application of mathematics in another subject area. Offered spring semester. Three credits.

### MA 103 Geometric and Measurement Theory

This course will provide pre-service teachers current trends, techniques, technologies, and research about teaching geometry. The course is designed to increase content knowledge and the knowledge of instructional strategies for teaching geometry. The van Hiele model for the development of geometric thought will be studied. Topics will include measurement, two- and three-dimensional figures, spatial relationships, constructions, tessellations, similarity and congruence, proportion, properties of figures. Students will participate in a variety of problem solving activities including paper folding and the use of "Geometer's Sketchpad". Three credits.

### MA 104 Elementary Functions

This is a one-semester course whose main ideas are emphasized in the presentation of the polynomial, rational, trigonometric, exponential, and logarithmic functions. The core of the course is derived from materials best described as a compendium of college algebra, trigonometry, and analytic geometry, which would reinforce those skills essential to calculus. Prerequisite: MA 099 or equivalent high school background. Three credits.

### MA 109 Calculus I (for Biology and Social Science majors)

The elementary functions, limits, the derivative and its applications, the definite integral, techniques of integration. Applications are presented from the areas of biology and the social sciences. Graphing calculators and the computer algebra system of Mathematica are used to help study various concepts of calculus. Four credits.

### MA 110 Calculus II (for Biology and Social Science majors)

Probability, vectors, partial differentiation, multiple integration, sequences and series. Graphing calculators and the computer algebra system of Mathematica are used to help study various concepts of calculus. Prerequisite: MA 109. Four credits.

### MA 111 Calculus I

The real number system. Limits and continuity. The concepts of differentiation and integration. Differentiation of algebraic and trigonometric functions and applications. Newton's method. The

Mean Value Theorem. The definite integral and the Fundamental Theorem of Calculus. Applications of the definite integral. Graphing calculators and the computer algebra system of Mathematica are used to help study various concepts of calculus. Four credits.

### **MA 112 Calculus II**

The trigonometric, logarithmic and exponential functions. Polar coordinates and parametric equations. The calculus of vectors. Techniques of integration and further applications of the integral. Approximate integration. Prerequisite: MA 111. Four credits.

### **MA 113 Calculus III**

Three-dimensional vectors and surfaces. Sequences and series. Multi-variable functions and partial differentiation. Double and triple integrals and applications. Prerequisite: MA 112. Four credits.

### **MA 114 Ordinary and Partial Differential Equations**

First order equations and applications, classical and numerical methods; second order linear equations and applications; solution in series; Bessel's and Legendre's equations; Laplace transform solutions; higher order equations; introduction to partial differential equations, separation of variables and Fourier series. Prerequisite: MA 113. Four credits.

### **MA 115 Linear Algebra**

Matrices and systems of linear equations. Vector spaces and linear transformations. Determinants. Inner product spaces, eigenvalues and eigenvectors. Prerequisite: MA 112. Three credits.

### **MA 116 Actuarial Science**

This course focuses on the basic mathematical principles underlying the mathematics of finance. Various concepts in interest theory such as discount and accumulation functions, certain annuities, yield rates, bonds, mortgages and other loans are presented. Fundamentals of other financial mathematics such as duration, immunization, and liability/asset matching are also covered in the course. Three credits.

### **MA 117 Methods of Proof**

An introduction to the more rigorous and theoretical aspects of mathematics. The course will focus on the construction and analyzing of mathematical proofs, including direct proof, proof by contrapositive, proof by contradiction, and mathematical induction. The basics of some mathematical logic, sets, number theory, algebra, and calculus will be covered as subject matter for the proofs. Prerequisite: MA 110 or MA 112. Three credits.

### **MA 201 Abstract Algebra I**

Groups: finite groups, cyclic groups, subgroups, Lagrange's theorem, normal subgroups, quotient groups, isomorphism theorems. Rings: ideals, quotient rings, isomorphism theorems. Prerequisite: MA 115. Offered every other year. Four credits.

### **MA 202 Abstract Algebra II**

Groups: direct products, fundamental theorem of finite abelian groups. Rings: integral domains, prime and maximal ideals, polynomial rings. Vector spaces. Fields. Field extensions. Introduction to basic algebraic geometry. Prerequisite: MA 201. Offered every other year. Four credits.

### **MA 203 Complex Variables**

The complex number system the Cauchy-Riemann equations, contour integrals, the Cauchy integral theorem and formula, sequences, power series and Laurent series, residue theory and conformal mapping. Prerequisite: MA 113. Three credits.

### **MA 204 Topology**

Sets, functions, metric spaces, topological spaces, connectedness, compactness, separation axioms, approximation, fixed point theorems. Prerequisite: MA 114. Offered every other year. Three credits.

### **MA 206 Real Analysis I**

A rigorous study of calculus, limits of sequences and functions, the Full Cover Theorem, absolute continuity, differentiation, properties of differentiable functions, the Riemann integral, Lebesgue's Theorem, the Riemann-Stieltjes integral, the Lebesgue integral, the Riemann-complete integral. Prerequisite: MA 114. Offered every other year. Four credits.

### **MA 207 Real Analysis II**

Vector calculus functions of several variables, differentiability, transformations, and the Inversion Theorem, infinite series, series of functions, Fourier series. Prerequisite: MA 206. Four credits.

### **MA 208 Probability and Statistics**

Discrete probability including such topics as independence, conditional probability, Bernoulli trials, and Bayes Theorem, Calculus of probabilities including random variables, discrete and continuous distributions, expectation and variance. Prerequisite: MA 113. Offered every other year. Three credits.

### **MA 210 Euclidean and Non-Euclidean Geometries**

Elementary geometry from an advanced standpoint. Non-Euclidean geometries, with emphasis on hyperbolic geometry. The postulation method. Prerequisite or concurrent course: MA 112. Spring semester. Three credits.

### **MA 213 Seminar for Engineers**

A review of the mathematics courses taken by the engineering student. A discussion of Laplace Transformations and Fourier Series. Emphasis is on student presentation. This seminar is taken during both semesters of the junior year. MA 213A is taken for zero credits. Prerequisite: MA 114. One credit.

### **MA 221 Engineering Drawing**

Lettering, use of instruments, applied geometry, sketching, multi-view projection, auxiliary projection, sections and conventions, pictorial drawing, dimensioning, shop drawing and Autocad applications. Enrollment in these courses requires students to purchase the necessary drawing supplies. Cross-listed with AR 233. Offered every other year. Three credits.

### **MA 223 Mechanics: Statics**

Forces in a plane and in space. Equivalent system of forces. Equilibrium of rigid bodies. Centroids and centers of gravity. Moments of inertia. Analysis of structures. Friction. Vectors used extensively. Cross-listed as PH 223. Prerequisite: PH 111 and MA 112. Three credits.

### **MA 224 Mechanics: Dynamics**

Kinematics of particles. Kinetics of particles by: (a) force, mass and acceleration, (b) work and energy, (c) impulse and momentum. Kinematics of rigid bodies. Plane motion of rigid bodies by: (a) forces and accelerations, (b) energy and momentum methods. Mechanical vibrations. Vectors used extensively. Cross-listed as PH 224. Prerequisite: MA 223. Three credits.

### MA 225 Strength of Materials

Strength of Materials is an introductory materials science and engineering course. Students learn about the influence of the structure of materials and inherent defects in materials on ultimate properties and performance. The emphasis is on strength and failure of metals, ceramics, and polymers, but electrical and thermal properties are also considered. Case studies are used to illustrate many of the instructional modules. Prerequisites: CH 102, MA 111. Three credits.

### MA 350 Independent Study

May be repeated. Variable credit.

### MA 550 Mathematics Internship

Work experience program extending the learning experience beyond the college into the world of work. Students are employed in an area related to their academic endeavor. Academic credits are P/F and are awarded according to the extent of the work experience. Students may or may not be paid depending on the site. The purpose of the program is to integrate academic studies and employment activities. May be repeated. Variable credit.

## Medieval Studies Minor

Contact: Gilbert M. Bogner

### Program Philosophy and Description

Medieval Studies is an interdisciplinary minor consisting of a wide range of courses that focus in significant ways on the civilization of the West in the medieval period, also known as the 'Middle Ages', ca. AD 500-1500. Arising out of the unique blending of Classical, Christian, and Germanic elements beginning in late antiquity, medieval culture became a vital and formative part of the Western heritage. Medieval people created sophisticated philosophical systems; beautiful forms of art and music; innovative styles of architecture; new expressions of piety and varieties of religious life; lively and imaginative poetry; the first universities; and the earliest forms of French, German, English, and other languages so commonplace today. The Middle Ages also saw the origin and early evolution of most European countries, as well as the first contacts and conflicts between Christians and Muslims. It is thus certainly a culture and era worthy of our attention. The purpose of the minor in Medieval Studies is to give students a broad understanding of medieval Western civilization by approaching it from a variety of perspectives. Courses are offered in literature, art, music, history, languages, philosophy, and theology.

### Requirements for a minor in Medieval Studies (18 credits)

The Medieval Studies minor consists of six courses in **at least three disciplines**, although students are encouraged to take courses from as many disciplines as possible.

Required course (3 credits):

HI 205	Priests, Poets, and Peasants: Medieval Thought and Culture
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Five courses from the following list (15 credits). Of these, at least three courses (9 credits) must be at the 200-level or above:

EL 114	British Literature: Middle Ages to Restoration
EL 147	Arthurian Literature
EL 211	Medieval Studies
EL 212	Chaucer
AR 101	Art History I: Ancient through Renaissance
MU 720	Gregorian Chant
HI 103	Western Civilization II: Medieval and Early Modern Europe
HI 110	English History to 1485
HI 211	Sword and Siege: War in Medieval Europe
HI 213	Mystics, Maids, and Monarchs: Women in Medieval Europe
HI 227	"Bring Out Yer Dead!" The Middle Ages on Film
HI 231	Blood and Roses: England in the Late Middle Ages
HI 248	The History of the Christian Churches I: to 1500
FR 321	Survey of French Literature I
GE 321	German Literature of the Middle Ages
LT 321	Latin Hymns of the Roman Church
PL 100	Ancient and Medieval Philosophy
PL 280	Thomistic Philosophy
TH 315	Theology of Augustine
TH 320	Theology of Medieval Christianity
TH 342	The Benedictine Heritage

*Courses used for the Medieval Studies minor may not be counted for the student's major or other minor programs. Only two courses used for the minor may be counted for the core curriculum. Since the content of HI 103 Western Civilization II has recently been changed, students who took it prior to Spring 2010 cannot count it toward the minor. The three language courses, FR 321, GE 321, and LT 321, would only be available to advanced students of French, German, and Latin, respectively. Additions or substitutions, including courses taken through study abroad programs, may be made with the consent of the program contact and the Dean of Studies.*

## Non-Required Courses

For a richer experience, students are strongly encouraged to use courses from the above list beyond those they use for the Medieval Studies minor to fulfill requirements for the core curriculum, majors, or other minors when possible.

In addition, the college offers a number of courses that relate in less direct ways to the culture of the medieval West. Such courses would illuminate further a student's understanding of the Middle Ages, while perhaps also fulfilling other requirements. The following is a list of some good suggestions, though there are many others. Please see the program contact or department chairs for more advice.

EL 149	J.R.R. Tolkien
EL 152	The Epic
AR 234	Introduction to Stained Glass
MU 105	Survey of Christian Sacred Music
HI 220	The Devil and the Problem of Evil in Western Thought
HI 280, 281	Islamic Civilization I and II
SP 321	Panorama of Spanish Literature
LT 101, 102	Elementary Latin I and II
LT 203, 204	Intermediate Latin I and II
PL 240	The Influence of Philosophy on Theology, Then and Now
TH 204	Psalms and Wisdom Literature
TH 218	Apocalyptic Literature

## Modern and Classical Languages

*Doreen Blandino, Chairperson*

*Benoît Alloggia, O.S.B.; Thomas Ernst; Vicente Gomis-Izquierdo*  
*Cuthbert Jack, O.S.B.; Paul-Alexander Shutt, O.S.B.*

*Adjunct Faculty: Jerome DiBernardo; Juan-Pedro Reyna*

*Professor Emeritus: Vera L. Slezak*

The Department offers the Bachelor of Arts degree in French and Spanish as well as minors in Chinese, French, German, Italian, Latin, and Spanish. The Department also sponsors the minor in International Studies. The minor in International Studies fulfills requirements for the minor or concentration for the Liberal Arts Major. The curriculum in the Department allows students to develop skills in a second language as part of the College's mission to produce a well-rounded graduate who is prepared for life and citizenship as well as for a career. Today's world is enriched by diversity. It is to be regretted if other languages, different cultures, or other people are considered "foreign," in the sense of reinforcing negative stereotypes. The program proposes to cultivate in each student an understanding and appreciation of other cultures. Respect for self and others must be at the basis of any worthwhile communication. It is in this sense that the Department considers the study of other languages integral to a liberal arts education.

All classes foster the skills of communication and understanding in a second language. Listening, speaking, reading and writing are integrated at each level of study. The program also provides students with the opportunity to develop insights into other cultures through the study of foreign literatures, art and film.

The Department's offerings are of interest to students preparing for careers in business, education, government, history, law, journalism and public services. Faculty members in the Department of Modern Languages encourage students to enrich their undergraduate studies through participation in study abroad or internship programs. Information on international studies programs is discussed in this **Bulletin** under Special Programs.

An integral part of the second language learning process is the language learning resource center. Individual and class use of the multi-media center facilitates the acquisition of language and culture. Students at the elementary level are required to use the center outside of class, while upper level students are encouraged to frequently use the facility.

### Modern and Classical Languages Learning Objectives

- Develop skills in listening, speaking, reading, and writing the second language.
- Make connections to other disciplines of study by acquiring knowledge of the practices, products and perspectives of the cultures studied.
- Gain greater insights into your own and other cultures so that you can better appreciate and understand other people's way of life, points of view and their contributions to the world.
- Participate in multilingual and multicultural communities in the U.S. and abroad.
- Gain practical experience using the second language through internship opportunities in a variety of settings.
- Experience the culture first-hand through study abroad or an immersion experience.
- Participate in an array of cultural events on campus hosted by the International Student Union, the Office of Multicultural Student Life and Phi Sigma Iota, the International Foreign Language Honor Society. Students also participate in cultural activities beyond the campus setting.
- Language learning is a lifelong fulfilling endeavor. The ability to communicate in another language enhances professional aims and enriches personal interactions and experiences.



## French

### Major Requirements (36 credits)

(See Core Curriculum requirements.)

A major in French requires 12 courses. French 203 and French 204 fulfill the core requirements as well as 6 credits for the major. In addition, a major in French requires 10 courses above 204. The following courses are required:

#### Three required courses (9 credits):

FR 315	Advanced French Grammar & Composition	3
FR 316	Reading French	3
FR 320	Developing Oral Proficiency & Phonetics	3
One course from the following 3 credits:		
FR 343	Contemporary France	3
FR 444	French Culture and Civilization	3
FR 445	France through the Centuries	3
Electives: Any six (6) courses above FR 204		18
Two (2) courses must be in literature		6

Credits earned in approved study abroad programs fulfill requirements for the major. Prior approval of study abroad programs is required from the department chair.

#### Required Core Courses:

One course from the following 3 credits:		
AR 100	Art and Music of Western Culture	3
AR 102	Art History II: Baroque to the Present	3
One course from the following 3 credits:		
AN 222	Cultural Anthropology	3
AN 328	Linguistic Anthropology	3
One course from the following 3 credits:		
EL 145	Reading as Writers: Poetry	
EL 236	Modern European Literature	
EL 252	Literary Translation Workshop	
One course from the following 3 credits:		
HI 103	Western Civilization II	3
HI 104	Contemporary Europe I	3
HI 105	Contemporary Europe II	3
HI 205	Medieval Thought and Culture	3

FR 550 is highly recommended. French majors are required to pursue a second major or a minor. French majors are also required to develop a portfolio and to undergo annual assessments of their oral skills. Study abroad is essential to cultural understanding and to attain proficiency in listening, speaking, reading, and writing French. **Therefore, a minimum of a nine-credit summer program or one semester of study in France or a French-speaking country or region is required. For students who are not able to study abroad, language study in an immersion setting may be substituted. All programs must be approved by the department chair.**

#### Teacher Preparation

Students seeking French certification, grades K-12, will take a minor in Education. Students are directed to read about the teacher certification requirements in the Education section of this Bulletin. They are also advised to contact the Chairperson of the Education Department for additional guidance.

#### Requirements for French Minor (18 credits):

A minor in French requires six (6) courses above FR203. The following three (3) courses are required (12 credits):

FR 315	Advanced French Grammar and Composition	3
FR 320	Developing Oral Proficiency in French	3
Any 300 level course in literature		3
One course from the following three (3) credits:		
FR 343	Contemporary France	3
FR 444	French Culture and Civilization	3
FR 445	France through the Centuries	3
Electives: Any two (2) courses above FR203		6

### Typical First-Year Schedule

#### Fall Semester

EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Natural Science		4
Social Science		3
History (100-124)		3
French		3
Total		16

All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

#### Spring Semester

EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Social Science		3
History (100-124)		3
English		3
French		3
Total		15

## Course Descriptions

### FR 101, 102 Elementary French I and II

For beginners in the language. The two courses form a sequence, and are normally completed as a unit. No prerequisite for FR 101. Satisfactory completion of FR 101 is a prerequisite for FR 102. The entire two-semester course aims at acquisition of the usual basic language skills of listening, speaking, reading and writing. Presentation of basic grammar and an introduction to the culture of French-speaking peoples. FR 101, 102 do not fulfill the graduation requirement. Each semester comprises three hours classroom work and one hour practice in the language lab under instructor's supervision, along with individual lab practice. FR101 offered fall semester; FR 102 offered spring semester. Four credits each semester.

### FR 203, 204 Intermediate French I and II

A two-semester sequence designed to fulfill the graduation requirement for students with adequate high school preparation (2 or 3 years). Students normally complete these two courses in sequence; an exception may be made by the Modern Language Department.

**(203)** Systematic grammar review and vocabulary building, with stress on nouns, adjectives, pronouns, and on the common tenses of regular and irregular verbs. Introduction to reading techniques suitable to college level study. Prerequisite: appropriate score on the College's language placement examination, or six (6) to eight (8) credits of college elementary French. Offered fall semester. Three credits.

**(204)** Understanding and use of the literary tenses, emphasis on the subjunctive, complex grammatical structures and idiomatic usages. Reading, compositions, and oral exercises. Both courses build an awareness of French-speaking cultures. Prerequisite: satisfactory completion of FR 203, or appropriate score on the College's language placement examination. Offered spring semester. Three credits.

*Courses numbered 305 and above are offered on demand. These courses are taught entirely in French, and have as a prerequisite FR 204, unless an exception is made by the Department.*

### FR 305 Conversational French

Development of speaking and listening skills beyond intermediate level. Fosters the ability to participate in daily life situations, social interchange, and discussion of topics read in newspapers or

magazines and heard from audio sources. Phonetic, grammatical and cultural components. Three credits.

### FR 310 French for Business

Development of oral and written skills. This course presents the essentials of modern commercial French through the medium of situations commonly found in the business world. Practical themes include currency exchange, travel, job interviews, telephone etiquette and cultural expectations. Three credits.

### FR 315 Advanced French Grammar and Composition

This course provides students with a solid foundation in French syntax. It is a writing-intensive course directed towards improvement of stylistic skills. Thorough review of tenses, complex grammatical structures and idiomatic expressions. Writing assignments progress in difficulty and will include journals, compositions, and critical essays. Three credits.

### FR 316 Reading French

This course provides students with an introduction to reading a variety of French texts. Students have the opportunity to develop their reading, speaking and writing skills through several assignments that progress in difficulty.

### FR 320 Developing Oral Proficiency & Phonetics in French

This course is designed to help students develop their oral proficiency, pronunciation and intonation in French. Course activities focus on a variety of discourse strategies, and encompass real-life linguistic situations and tasks. Pronunciation skills will be enhanced through the study of phonetics. Oral proficiency will be developed through role-play, presentation, debate, and collaborative language use in a variety of content areas.

### FR 321 Survey of French Literature I

Survey of literary movements from the Middle Ages through the 17th century, with selections from the major writers. Grammar review, oral presentations and compositions in French. Three credits.

### FR 322 Survey of French Literature II

Survey of literary movements from the 18th century to the present, with selections from the major writers. Grammar review, oral presentations and compositions in French. Three credits.

### FR 330 Readings in 19th Century Authors

Selected readings from Chateaubriand, Balzac, Hugo, Baudelaire, Flaubert, Stendhal, Zola and others will be covered. Emphasis will be placed on turbulent political and social movements of the century and their reflection in literature of this period. Three credits.

### FR 332 Readings in 20th Century Authors

Study of selected works by modern French authors with attention to social and historical settings and content. Readings from Camus, Colette, Gide, Green, Fournier, Mauriac, Proust, and others. Three credits.

### FR 343 Contemporary France

A study of contemporary France, presenting an overview of the social and political issues. Students will expand their reading, writing and conversational skills through course readings and assignments. Three credits.

### FR 350 Independent Study

May be repeated. Variable credit.

### FR 444 French Culture and Civilization

A survey of French history from the 16th century to the present. The course will look at political and social movements, reform and revolution as well as the influence of religion, culture, science and literature. Three credits.

### FR 445 France Through the Centuries

French politics, history, economics, and aspects of daily life will be discussed through the use of selected readings and authentic documents. Students will further develop their reading, writing, and speaking skills through the study of French culture. Three credits.

### FR 550 French Internship

Professional work experience in the community which complements and strengthens academic in-class learning. Academic credit is variable depending on the nature and duration of the experience. Students may or may not be compensated depending on the company/ agency/education setting. Students must receive departmental approval to participate. May be repeated. Variable credit.

### STAB Study Abroad

Participation in an approved program, either self-designed or in conjunction with an established program of another American university. Student must have the approval of the department chair before commencing any studies abroad. Variable credit.

## Spanish

### Requirements for a Bachelor of Arts Degree in Spanish

(See Core Curriculum requirements.)

#### Major Requirements (36 credits):

A major in Spanish requires 12 courses. Spanish 203 and Spanish 204 fulfill the core requirement as well as six (6) credits for the major. In addition, a major in Spanish requires 10 courses above Spanish 204. The following courses are required:

One course from the following 3 credits:

SP 226	Advanced Reading & Writing Spanish	3
SP 228	Introduction to Spanish Literary Analysis	3

The following two courses are required 6 credits:

SP 315	Advanced Spanish Grammar and Composition	3
SP 320	Developing Oral Proficiency & Phonetics	3

One course from the following 3 credits:

SP 342	Contemporary Spain	3
SP 444	Peninsular Culture and Civilization	3

One course from the following three (3) credits:

SP 343	Contemporary Latin America	3
SP 445	Spanish Culture and Civilization	3

Electives: Any 300 or 400 level Peninsular literature class 3

Any 300 or 400 level Spanish American Literature class 3

Electives: Any three (3) courses above SP 204 9

**Credits earned in approved study abroad programs fulfill requirements for the major. Prior approval of study abroad programs is required from the department chair.**

#### Required Core Courses:

HI 233	History of Latin America	3
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One course from the following 3 credits:

AR 100	Art and Music of Western Culture	3
AR 102	Art History II: Baroque to the Present	3
AR 200	Pre-Columbian Art and Architecture	3

One course from the following 3 credits:

EL 138	Multi-Ethnic Literature of the United States	
EL 236	Modern European Literature	
EL 145	Reading as Writers: Poetry	
EL 252	Literary Translation Workshop	

One course from the following 3 credits:

AN 222	Cultural Anthropology	3
AN 328	Linguistic Anthropology	3

SP 550 is highly recommended. Spanish majors are required to pursue a second major or a minor. Spanish majors are also required to develop

op a portfolio and to undergo annual assessments of their oral skills. Study Abroad is essential to cultural understanding and to attain proficiency in listening, speaking, reading and writing Spanish. **Therefore, a minimum of a nine-credit summer program or one semester of study in a Spanish-speaking country or region is required. Students are encouraged to participate in the College's program at the UNIVAC Language Center in Cuernavaca, Mexico (9 credit maximum). For students who are not able to study abroad, language study in an immersion setting may be substituted. All programs must be approved by the department chair.**

### Teacher Preparation

Students seeking Spanish certification, grades K-12, will take a minor in Education. Students are directed to read about teacher certification requirements in the Education section of this Bulletin. They are also advised to contact the Chairperson of the Education Department for additional guidance.

### Minor Requirements (18 credits):

A minor in Spanish requires 6 courses above SP 203. The following four (4) courses are required (12 credits):

SP 315	Advanced Spanish Grammar and Composition	3
SP 320	Developing Oral Proficiency & Phonetics	3
Any 300 level course in literature		3
Any course in culture and civilization		3
Elective: Any two (2) courses above SP 203		6

### Typical First-Year Schedule

#### Fall Semester

EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Natural Science		4
Social Science		3
History (100-124)		3
Spanish		3
Total		16

All students will take one three (3) credit course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

#### Spring Semester

EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Social Science		3
History (100-124)		3
English		3
Spanish		3
Total		15

## Course Descriptions

### SP 105 Review Spanish

Prerequisite: Appropriate score on the College's language placement examination or permission of instructor. A one-semester course which emphasizes vocabulary, grammar and cultural awareness. This course assumes little or no prior knowledge of Spanish. It is normally followed by the two-semester sequence of SP 203 and 204. SP 105 does not count for the fulfillment of the graduation requirement. Offered spring semester. Three credits.

### SP 203, 204 Intermediate Spanish I and II

A two-semester sequence designed to fulfill the graduation requirement for students with adequate high school preparation (two or three years). Students normally complete these two courses in sequence; an exception may be made by the Modern Language Department.

(203) Systematic grammar review and vocabulary building, with stress on nouns, adjectives, pronouns, and on the common tenses of regular and irregular verbs. Introduction to reading techniques suitable to college level study. Prerequisites: Six (6) to eight (8) credits of college Elementary Spanish, SP 105 or appropriate score on the College's language placement examination. Offered fall semester. Three credits.

(204) Further understanding of Spanish syntax with emphasis on the subjunctive, complex grammatical structures and idiomatic usages. Reading, compositions, and oral exercises. Both courses build an awareness and appreciation of the variety of Spanish cultures. Prerequisite: satisfactory completion of SP 203 or appropriate score on the College's language placement examination. Offered spring semester. Three credits.

*Courses numbered 226 and above are offered on demand. These courses are taught entirely in Spanish, and have as a prerequisite SP 204, unless an exception is made by the Department.*

### SP 226 Advanced Reading and Writing Spanish

This course emphasizes the development of writing skills through practice. Assignments include descriptions, narrations, argumentation, and other types of texts that will enable the student to achieve a more sophisticated written expression. Some grammar review will be offered. Three credits.

### SP 228 Introduction to Spanish Literary Analysis

This class is meant for students with a certain amount of experience as readers of Spanish texts. The course includes the simple analysis of Spanish short stories; assignments include short papers in which the student analyzes and discusses an aspect of the texts. Three credits.

### SP 310 Spanish for Business

Development of oral and written skills. This course presents the essentials of modern commercial Spanish through the medium of situations commonly found in the business world. Practical themes include currency exchange, travel, job interviews, telephone etiquette and common types of written business correspondence. Emphasis on cross-cultural understanding and exploration of business practices in Hispanic countries and the United States. Three credits.

### SP 315 Advanced Spanish Grammar and Composition

This course provides students with a solid foundation in Spanish syntax. It is a writing-intensive course directed towards improvement of stylistic skills. Thorough review of tenses, complex grammatical structures and idiomatic expressions. Writing assignments progress in difficulty and will include journals, compositions, and critical essays. Three credits.

### SP 320 Developing Oral Proficiency & Phonetics in Spanish

Development of listening, speaking and pronunciation skills through the study of phonetics. Familiarity with dialectal variations. Advanced practice in oral expression. Topics may include current events, films and daily situations. Three credits.

### SP 321 Panorama of Spanish Literature

Survey of literary movements in Spain from the Middle Ages through the 19th century, with reading and discussion of selections from the major writers. Grammar review, oral presentations and composition in Spanish. Three credits.

### SP 322 Panorama of Latin American Literature

Selections from major writers. This course explores the relationship between literature and Latin American political movements. Three credits.

### SP 332 Peninsular Literature of the XIX Century

This course provides students with an understanding of the Spanish literary tradition of 19th century Spain. Students will study major literary movements and authors of the period. This course can be a survey including all major literary movements and authors; or it may be offered as a topics class, where the focus is on the discussion of a specific issue such as social class, gender, economics, etc., or devoted to one specific literary genre. Three credits.

### SP 333 Peninsular Literature of the XX Century

This is a literature class intended for the student to understand the Spanish literary tradition of the XX century. This class can be a survey including all major literary movements and authors; or it may be offered as a topics class, where the focus is on the discussion of a specific issue such as social class, gender, economics, etc., or devoted to one specific literary genre. Three credits.

### SP 337 Spanish American Literature of the XIX Century

This is a literature class intended for the student to understand the Spanish American literary tradition of the XIX century. This class can be a survey including all major literary movements and authors; or it may be offered as a topics class, where the focus is on the discussion of a specific issue such as social class, gender, economics, etc., or devoted to one specific literary genre. Three credits.

### SP 338 Spanish American Literature of the XX Century

This is a literature class intended for the student to understand the Spanish literary tradition of the XX century. This class can be a survey including all major literary movements and authors; or it may be offered as a topics class, where the focus is on the discussion of a specific issue such as social class, gender, economics, etc., or devoted to one specific literary genre. Three credits.

### SP 342 Contemporary Spain

A study of contemporary Spain, presenting an overview of the social and political issues. Three credits.

### SP 343 Contemporary Latin America

A study of contemporary Latin America, presenting an overview of the social and political issues. Three credits.

### SP 350 Independent Study

May be repeated. Variable credit.

### SP 444 Peninsular Culture and Civilization

This course is a survey of the major historic events that shaped Spain. It includes discussions of different historic periods and cultural influences and movements. Three credits.

### SP 445 Spanish American Culture and Civilization

This course is a survey of the major historic events that shaped Spanish America. It includes discussions of different historic periods and cultural influences and movements. Three credits.

### SP 450, 451 Study Spanish in Mexico I and II

A foreign language and cultural experience open to beginners or students at any level. There are no prerequisites. Students choose a designed or flexible program of small-group study, at each one's level of proficiency and live with local families in Cuernavaca, Mexico. Saint Vincent offers equivalency credits for study at the UNIVAC Language Center. Programs are available

at all times of the year. Course content varies according to choice. Variable credit.

### SP 550 Spanish Internship

Professional work experience in the community which complements and strengthens academic in-class learning. Academic credit is variable depending on the nature and duration of the experience. Students may or may not be compensated depending on the company/ agency/ educational setting. Students must receive departmental approval to participate. May be repeated. Variable credit.

### STAB Study Abroad

Participation in an approved program, either self-designed or in conjunction with an established program of another American university. Student must have the approval of the department before commencing any studies abroad. Credits vary.

## Chinese

### Requirements for a Minor in Chinese Language & Culture (21 credits):

Required Language Courses (9 credits):

CHI 204	Intermediate Chinese II	3
Choose 2 from the following courses (6 credits):		
CHI 305	Advanced Chinese Conversation I	3
CHI 306	Reading Chinese	3
CHI 307	Advanced Chinese Conversation II	3
CHI 320	Topics in Chinese Language, Civilization or Literature (taught in Chinese)	3

### Traditional Chinese History (3 credits):

Choose one from the following courses:

HI 108	Traditional East Asian Societies	3
HI 270	The Rise of Chinese Civilization	3

### Modern Chinese History (3 credits):

Choose one from the following courses:

HI 109	Modern East Asian Societies	3
HI 208	Modern China	3
HI 209	Issues in Contemporary East Asia	3
HI 274	China and Japan in Fiction and Film	3

### Elective Courses (6 credits):

Maximum of three (3) credits from one Department.

Choose two (2) from the following courses:

AR 390	Non-Western Art Seminar	3
CHI 310	Chinese Literature in Translation	3
CHI 311	Selected Readings in Chinese	3
HI 232	Race and Ethnicity in Historical Perspective	3
PL 303	Eastern Thought	3
TH 385	Buddhism	3
TH 380	World Religions	3

## Course Descriptions

### CHI 101, 102 Elementary Chinese I and II

For beginners in the language. The two courses form a sequence, and are normally completed as a unit. No prerequisite for CHI 101. Satisfactory completion of CHI 101 is a prerequisite for CHI 102. The entire two-semester course aims at acquisition of the usual basic language skills of listening, speaking, reading and writing. Presentation of basic grammar and an introduction to Chinese culture. Pinyin (the most-widely used Chinese phonetic system) will be taught as a tool to learn the spoken language. Students will also learn Chinese characters in order to be able to

communicate effectively in real Chinese situations. Approximately 200 words and expressions in both Pinyin and character forms will be taught. CHI 101, 102 do not fulfill the graduation requirement. Each semester comprises three hours classroom work and one hour practice in the language lab under instructor's supervision, along with individual lab practice. CHI101 offered fall semester; CHI 102 offered spring semester. Four credits each semester.

### **CHI 203, 204 Intermediate Chinese I and II**

A two-semester sequence designed to fulfill the graduation requirement for students with adequate high school preparation (two or three years). Students normally complete these two courses in sequence; an exception may be made by the Modern Language Department.

**(203)** This course is designed for students with prior experience on listening, speaking, reading and writing Chinese at the elementary level. While students will be trained in all four skills, more emphasis will be given to reading and writing Chinese characters, expanding vocabulary, understanding Chinese culture. To facilitate the study of the language, different aspects of Chinese culture and society will be introduced through group activities, multimedia programs, and research project throughout the course. Offered fall semester. Three credits.

**(204)** This course offers Chinese for daily communication through intensive study and practice in written and spoken Chinese. Students will carry on conversations and participate in classroom discussions in Mandarin Chinese on various topics associated with daily life and learn to write short passages in Chinese characters. This course also explores definitions of culture and analyzes the dynamic role of language in culture and culture in language, with an aim to foster crosscultural awareness and self-realization while developing proficiency in Chinese. Offered spring semester. Three credits.

*Courses numbered 305 and above are offered on demand. These courses are taught in Chinese and have as a prerequisite CHI 204, unless an exception is made by the Department.*

### **CHI 305 Advanced Chinese Conversation I**

This course aims to improve the ability to speak and understand Chinese, emphasizing correct pronunciation and intonation. Active participation from the students is required. Students will have the opportunity to converse on a variety of topics. Three credits.

### **CHI 306 Reading Chinese**

This course provides an introduction to reading Chinese. Reading materials include newspaper articles, poetry and short stories. Students are required to complete written assignments and discuss the readings. Cultural awareness, reading, writing and speaking skills will be enhanced. Three credits.

### **CHI 307 Advanced Chinese Conversation II**

This course continues to develop students' conversational abilities through daily use of the target language. Students will engage in real-life situational role plays and engage in discussions of and make formal oral presentations of cultural and literary readings. This course promotes cultural awareness and communicative proficiency.

### **CHI 310 Chinese Literature in Translation**

This course introduces students to the classical literature and culture of the Tang, Song, Yuan, Ming and Qing Dynasties. Readings will include poetry, prose, dramas and novels. All readings, papers and class discussions are in English. Three credits.

### **CHI 311 Selected Readings in Chinese**

This course explores the major literary works of modern Chinese literature and the significant historical events during this period.

Students will gain insights to Chinese culture through a variety of readings. The short story is emphasized along with selected poems and plays of the twentieth century. All readings, papers and class discussions are in English. Three credits.

### **CHI 320 Topics in Chinese Language, Civilization or Literature**

The contents of this course will vary from an emphasis on difficult aspects of Chinese language and conversation practice, to reading a variety of genres which include essays, poems, short stories and plays. Historical and political developments will be discussed. Students will enhance their understanding and appreciation of cultural beliefs, attitudes and practices.

### **STAB Study Abroad**

Participation in an approved program, either self-designed or in conjunction with an established program of another American university. Students are encouraged to study at our sister college, Fu Jen Catholic University in Taiwan or participate in the Saint Vincent College East Asia Study Tour. Student must have the approval of the department before commencing any studies abroad. Variable credit.

## **German**

### **Requirements for German Minor (18 credits):**

A minor in German requires six (6) courses above GE 203. The following four (4) courses are required (12 credits):

GE 305	Conversational German	3
GE 315	Advanced German Grammar and Composition	3
	Any 300 level course in literature	3
	Any course in culture and civilization	3
	Elective: Any two (2) courses above GE 203	6

Study abroad is essential to cultural understanding and to attain proficiency in listening, speaking, reading, and writing German. **Students, therefore, who wish to minor in German are strongly encouraged to study abroad. For students who are not able to study abroad, language study in an immersion setting may be substituted. All programs must be approved by the department chair.**

## **Course Descriptions**

### **GE 101, 102 Elementary German I and II**

For beginners in the language. The two courses form a sequence, and are normally completed as a unit. No prerequisite for GE 101. Satisfactory completion of GE 101 is a prerequisite for GE 102. The entire two-semester course aims at acquisition of the usual basic language skills of listening, speaking, reading and writing. Presentation of basic grammar and an introduction to the culture of German speaking peoples. GE 101, 102 do not fulfill the graduation requirement. Each semester comprises three hours classroom work and one hour practice in the language lab under instructor's supervision, along with individual lab practice. GE101 offered fall semester; GE 102 offered spring semester. Four credits each semester.

### **GE 203, 204 Intermediate German I and II**

A two-semester sequence designed to fulfill the graduation requirement for students with adequate high school preparation (2 or 3 years). Students normally complete these two courses in sequence; an exception may be made by the Foreign Language Department.

**(203)** Thorough grammar review, development of speaking, listening, reading and writing, and enhancement of cultural understanding. Prerequisite: appropriate score on the College's language placement examination, or six (6) to eight (8) credits of college elementary German. Offered fall semester. Three credits.



**(204)** Emphasis on development of reading and discussion skills, with material dealing with German culture. Written exercises, translation and discussion. Prerequisite: satisfactory completion of GE 203, or appropriate score on the College's language placement examination. Offered spring semester. Three credits.

*Courses numbered 305 and above are offered on demand. These courses are taught entirely in German, and have as a prerequisite GE 204, unless an exception is made by the Department.*

### **GE 305 Conversational German**

This course aims at improving the ability to speak and understand German, with the main emphasis on the pronunciation and intonation of German, and the expansion of active and passive vocabulary. Class sessions will revolve around conversations on a variety of topics based on personal interest, supplemented by material from the web, videos, films, short stories and magazine articles, as well as vocabulary and grammar quizzes, dictations, and oral presentations. Each student will give a midterm and final presentation on a German-related topic. Three credits.

### **GE 308 German Phonetics**

This course is designed to help students develop an as near-native as possible ability to produce individual German sounds, achieve correct word intonation, and develop a sense for various sentence rhythms, in order better to comprehend and interact with native speakers. Three credits.

### **GE 309 History of the German Language**

This course will present an overview of the history of the German language, from the Indoeuropean origins to Old High German, Middle High German, Early New High German, and High German. The focus will be on linguistic, geographical, and historical developments, conveyed through close readings of unedited texts representative for each period. An excellent foundation course for all the other period courses. Three credits.

### **GE 315 Advanced German Grammar and Composition**

This course provides students with a solid foundation in German syntax. It is a writing-intensive course directed towards improvement of stylistic skills. Thorough review of tenses, complex grammatical structures and idiomatic expressions. Writing assignments progress in difficulty and will include journals, compositions, and critical essays. Three credits.

### **GE 321 German Literature of the Middle Ages**

This course will present an overview from the earliest literary documents of the late 8th Century (Merseburger Zaubersprüche, Hildebrandslied) through the Carolingian Renaissance (Einhard, Notker), to the heroic and courtly epics of the early 13th Century (Nibelungen, Parzival) and "Minnesang" (Walther, Codex Manesse), while glossing linguistic as well as historical developments. Three credits.

### **GE 322 German Baroque Literature and Civilization**

This course will focus on literary developments of the German Baroque (Language Societies, Opitz, Gryphius, Grimmelshausen), its music (Froberger, Reincken, Erlebach) and art — in particular the Dutch School, against the backdrop of conceptual and historical developments, such as the art of emblems, and the Thirty Years' War. Three credits.

### **GE 332 Early 20th Century German Literature**

An introduction to German and Austrian literary texts from approximately 1900 - 1950. Texts under consideration will not only include novels (in excerpted form), stories, essays, plays, and poetry by representative authors such as Hofmannsthal, Thomas Mann, Heym, Klabund, Brecht, Benn, but also memoirs, inter-

views, letters, and newspaper articles. Focus on grammatical, stylistic, structural, contextual and historical analyses; examination of period-terms such as "Fin de Siècle," Expressionism, Weimar Republic, the Post-War era. Three credits

### **GE 333 German Culture and Civilization of the 18th Century**

This course will focus on the (re)discovery of classicism in German thought and literature (Goethe, Lessing, Schiller), the new standardisation of the German language, the "Sturm und Drang" of literature (Klopstock, Herder, Goethe, Claudius), music (Haydn, C. P. E. Bach, Mützel, Mozart) and political adventure (Trenck), against the backdrop of significant historical developments (Friedrich's Prussia, French Revolution). Three credits.

### **GE 340 German Romanticism**

This course will focus on literary developments during the Romantic period (Brentano, Novalis, Eichendorff, Hölderlin, Heine), the renewed focus on German philology and mythology (Jacob Grimm, Schlegel), and also gloss the music and art of the time, against the backdrop of historical developments. Three credits.

### **GE 343 German Special Topics**

This contents of this course will vary, as it will examine in greater detail one particular author (such as, for example, Goethe), or one particular period (such as, for example, Sturm und Drang), or one particular work (such as, for example, Fontane's *Effi Briest*), or a particular topic German-related topic (such as, for example, the spelling reform of 2000). Discussion of selected readings; written exams, oral presentations. Three credits.

### **GE 350 Independent Study**

May be repeated. Variable credit.

### **GE 550 German Internship**

Professional work experience in the community which complements and strengthens academic in-class learning. Academic credit is variable depending on the nature and duration of the experience. Students may or may not be compensated depending on the company/ agency/educational setting. Students must receive departmental approval to participate. May be repeated. Variable credit.

### **STAB Study Abroad**

Participation in an approved program, either self-designed or in conjunction with an established program of another American university. Student must have the approval of the department before commencing any studies abroad. Variable credit.

## **Italian**

### **Requirements for Italian Minor (18 credits):**

A minor in Italian requires six (6) courses above IT 203. The following four (4) courses are required ( 12 credits):

IT 305	Developing Oral Proficiency in Italian	3
IT 315	Stylistics: Techniques of Composition and Interpretation	3
	Any 300 level course in literature	3
	Any 300 level course in culture and civilization	3
	Elective: Any two courses above IT 203	6
Study abroad is essential to cultural understanding and to attain proficiency in listening, speaking, reading, and writing Italian. <b>Students, therefore, who wish to minor in Italian are required to study abroad. A minimum of a nine-credit summer program or one semester of study in Italy would qualify. For students who are not able to study abroad, language study in an immersion setting may be substituted. All programs must be approved by the department chair.</b>		

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## Course Descriptions

### IT 101, 102 Elementary Italian I and II

For beginners in the language. The two courses form a sequence, and are normally completed as a unit. No prerequisite for IT 101. Satisfactory completion of IT 101 is a prerequisite for IT 102. The entire two-semester course aims at acquisition of the usual basic language skills of listening, speaking, reading and writing. Presentation of basic grammar and an introduction to the culture of Italian-speaking peoples. IT 101, 102 do not fulfill the graduation requirement. Each semester comprises of four hours classroom work under the instructor's supervision. IT 101 offered fall semester; IT 102 offered spring semester. Four credits each semester.

### IT 203, 204 Intermediate Italian I and II

A two-semester sequence designed to fulfill the graduation requirement for students with adequate high school preparation (2 or 3 years). Students normally complete these two courses in sequence; an exception may be made by the Modern Language Department.

**(203)** Systematic grammar review and vocabulary building, emphasizing the major components of grammatical forms and syntax, always within the context of the spoken and written forms of the language. Prerequisite for IT 203: appropriate score on the College's language placement examination, or six (6) to eight (8) credits of college elementary Italian. Offered fall semester. Three credits.

**(204)** Understanding and use of all the tenses with emphasis on the subjunctive mood in both the spoken and written language. Readings, written and oral exercises, discussion. Prerequisite for 204: satisfactory completion of IT 203 or appropriate score on the College's language placement examination. Offered spring semester. Three credits.

*Courses at the 300-level and above are offered on demand. 300-level courses are taught entirely in Italian, and have as a prerequisite IT 204, unless an exception is made by the department.*

### IT 305 Developing Oral Proficiency in Italian

This course is designed to help students develop their oral proficiency. The activities will focus on a variety of discourse strategies, will encompass real-life linguistic situations and tasks, and will be developed through role play, presentation, debate, and collaborative language use in a variety of content areas. Three credits.

### IT 308 Italian Phonology

This course is devoted to the study of Italian sounds, stress, and intonation. It is designed to help students sound as much as possible like a native speaker of the language. Three credits

### IT 315 Stylistics: Techniques of Composition and Interpretation

This course is designed to improve the student's ability to write Italian correctly and with a certain elegance of style. Selections from modern authors will be analyzed for their effectiveness and manner of expression. Sensitivity to appropriate register of language will be stressed, as well as distinctions between the written and spoken language. Written assignments will include linguistic exercises, short translations, from English to Italian, summaries, compositions, comments, and interpretations of a variety of texts. Three credits.

### IT 319 Advanced Italian: Studies in Language

Designed to develop oral and written proficiency at the advanced level, this course will require the student to submit essays, give oral presentations of increasing length and complexity, and participate in class discussions. Three credits.

### IT 321 Introduction to Italian Literature

An introduction to writing and reading in Italian that will prepare the student for a more systematic introduction to literary analysis in later courses. Basic inquisitive reading skills and clarity of written expression are stressed in this course. Students will study texts so that they will be able to reconstruct the process of literary creation as well as be introduced to some of the general vocabulary of poetics, genre, and literary criticism. Some of the authors to be studied are: Ungaretti, Ginzburg, Petracca, Eco, Primo Levi, Deledda, et al.

### IT 322 Alla Scoperta di Roma Antica

The history of the Città Eterna will be studied from its foundation in 753 B.C. to its fall in 476 A.D. Three credits

### IT 330 L'Italia al cinema

Film is a legitimate means for discovering the language and culture of any country, and Italy is no exception. This course will look at some of the classic as well as contemporary films of Italy in order to improve oral / aural skills as well as expand the student's understanding of certain cultural or linguistic aspects of Italian through cinema. Three credits

### IT 343 An Introduction to Contemporary Italy

This course will afford the opportunity to expand conversation, writing, and reading skills while consolidating knowledge of the more difficult points of grammar. The contextual focus of the course is contemporary Italian culture, including contemporary history and politics, the economy, the division between North and South, immigration from developing countries, environmental issues, and popular music, among others. Italian films, music, and articles from newspapers, newsmagazines, and short stories, will enhance and complete the learning experience. Three credits.

### IT 345 Italian through Opera.

This course will continue to build on the skills of language, conversation, and culture through the medium of classic Italian opera. Students will become familiar with great opera through discussion of well-known characters, plots, settings, themes, criticism, and interpretation while at the same time expand their vocabulary and acquire accuracy and fluency. Three credits.

### IT 350 Independent Study

May be repeated. Variable credit.

### STAB Study Abroad

Participation in an approved program, either self-designed or in conjunction with an established program of another American university. Student must have the approval of the department before commencing any studies abroad. Variable credit.

## Latin

### Requirements for Minor in Classical Latin (18 credits)

A minor in Latin requires six courses above LT 203 both in the target language as well as non-language courses that are offered by other departments of the college. The following language courses are required (12 credits):

LT 204	Intermediate Latin II	3
Any 300 level course(s) and above in literature		6
Any 300 level course(s) and above in culture/civilization		3
Select any two non-language courses from the following (6 credits):		
EL 210	Classical Greek Poetry and Drama	3
HI 102	Western Civilization I	3
AR 101	Art History: Ancient through Renaissance	3
AN 230	Archeology	3

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## Course Descriptions

### LT 101, 102 Elementary Latin I and II

For beginners in the language. The two courses form a sequence and are normally completed as a unit. No prerequisite for LT 101. Satisfactory completion of LT 101 is a prerequisite for LT 102. The entire two-semester course aims at the acquisition of the basic language skills of a highly inflected language such as Latin. Emphasis will thus be placed on morphology, syntax, vocabulary, culture, and the unique sentence structure that is so characteristic and inherent in Latin. LT 101, 102 do not fulfill the graduation requirement. Each semester comprises of four hours classroom work under the instructor's supervision. LT 101 offered fall semester; LT 102 offered spring semester. Four credits each semester.

### LT 203, 204 Intermediate Latin I and II

A two-semester sequence designed to fulfill the foreign language requirement of the core curriculum. Students normally complete these two years in sequence.

**(203)** Systematic review of basic morphology, syntax, and vocabulary is presented. The indicative and imperative moods are presented in their entirety. There are also presentations on cultural elements and vocabulary expansion. Reading passages reflect Græco-Roman culture and mythology as well as passages from Christian literature. Prerequisite for LT 203: appropriate score on the College's language placement examination. Three credits.

**(204)** Building on material covered in LT 203, more complex grammatical structures will be covered with special emphasis on the use of participles, e.g., ablative absolutes, periphrastics, etc. Reading passages will reflect material covered and be taken from both classical and Christian literature, the latter through the medium of Gregorian chant. Prerequisite: satisfactory completion of LT 203. Exceptions may be made by the Modern Language Department and a qualifying exam may be required. Offered spring semester. Three credits.

*Courses at the 300-level and above are offered on demand. 300-level courses are taught entirely in Latin, and have as a prerequisite LT 204, unless an exception is made by the department.*

### LT 321 Latin Hymns of the Roman Church

The Good News of the Incarnation began with a hymn when the angels sang Gloria in excelsis Deo. Hymns are at the center of Jewish and Christian worship. This course will look at some of the most famous biblical hymns of both testaments as well as those written by some of the greatest Latin poets of the Roman Church: Saint Ambrose, Prudentius, Pope Saint Gregory the Great, Venantius Fortunatus, et alii. These hymns will be studied at two levels: textual and musical. The basics of Gregorian chant will also be presented. Three credits.

### LT 325 Introduction to Ancient Greek

The goal of this course is to present the basic grammar and morphology of ancient Greek so that the student may begin to read in the target language as soon as possible, and to do so within the context of ancient Greek culture. While the main story line presented has been made up, the many sub-plots are based on the works of Homer, Herodotus, and Thucydides. A second semester of ancient Greek is possible based on interest. Three credits.

### LT 335 Cicero I

This course focuses on the four Catilinarian orations delivered in 63 B.C. before the Senate and the People of Rome during the turbulent final years of the Republic. Due consideration will be given to the historical, political, social environment as well as the literary style of this great Roman orator. Three credits.

### LT 337 Cicero II

Students will read the Pro Archia poeta oratio in which Cicero gives a brilliant defense of the role of literature and the humanities in society. His perspective will be compared to those of Cardinal Newman and Alexander Solzhenitsyn. Three credits.

### LT 340 Roman Poetry I

A study of style and theory in late Republican poetry. Selections to be read are taken from the major Republican and Augustan poets Catullus and Ovid and will investigate the role of intertextuality in the reading of Roman poetry. Three credits.

### LT 342 Roman Poetry II

A study of style and theory in late Republican poetry. Selections to be read are taken from the major Augustan poets Horace and Vergil, and will investigate the role of intertextuality in the reading of Roman poetry. Three credits.

### LT 345 Historians of the Empire

Readings from Tacitus and Suetonius, with special attention given to the political and cultural history of the first century of the empire. Three credits.

### LT 350 Independent Study

May be repeated. Variable credit.

### LT 420 Vergil: The Eclogues

This course will begin with an introduction to Greek pastoral poetry, the invention of Theocritus of Syracuse. Next we shall see how Vergil's deep, enduring love for the country informed his pastoral poetry at a time when the "young poets of the City,"—Catullus and his friends—were more concerned to be fashionable, to be urbane; and for whom country life represented the very qualities they despised. Three credits.

### LT 443 The Aeneid I

Books I – VI of the great Roman epic will be studied. Students will review dactylic hexameter and develop their metrical skills so as to be able to read aloud this masterpiece of Roman literature. Three credits.

### LT 446 The Aeneid II

The second half of the epic begins with Vergil stating that "...a higher order of things / Opens before me; a greater work now begins." Books VII - XII will be studied in light of these lines, carefully observing differences and similarities with the first half of the poem. Three credits.

International Studies Minor

Minor in International Studies with an area concentration in French, German, Italian, Spanish, or Chinese: 24 credits

The Department of Modern and Classical Languages sponsors the minor in International Studies. The minor consists of either a concentration for the Liberal Arts major or a minor with a language and culture area concentration. The primary purpose of the minor in International Studies is to give participants a global awareness and a broader perspective of the modern world. A secondary purpose is the development of skills and abilities in speaking, writing, and reading a second language in order to enhance cross-cultural understanding. We strongly encourage students who minor in International Studies to consider study abroad.

Requirements for a minor in International Studies (24 credits): Required courses (18 credits)

Two language courses at the 300 level or above for French, German, Italian, or Spanish. One course must be in either Culture and Civilization or Contemporary Cultures in relation to area of concentration.		
For Chinese, 6 credits of language at the 200 level or above.		6
SO 106	Sociology and Global Issues	3
PS 242	International Relations	3
HI 123 or 124	Global History I or II	3
One history course from the following in relation to area of concentration (3 credits): (Only one 100-level HI course will count toward core requirements).		
HI 102 or 103	Western Civilization I or II	3
HI 104 or 105	Contemporary Europe I or II	3
HI 108 or 109	Traditional or Modern East Asian Societies	3
HI 205	Medieval Thought and Culture	3
HI 209	Issues in Contemporary East Asia	3
HI 233	History of Latin America	3
HI 270	The Rise of Chinese Civilization	3
HI 280	Islamic Civilization I	3
Two courses from the following in relation to area of concentration (6 credits):		
AN 222	Cultural Anthropology	3
AN 225	Anthropology and World Art	3
AN 242	Anthropology of Religion	3
AN 328	Anthropology and Communication/Linguistics	3
AR 200	Pre-Columbian Art and Architecture	3
AR 390	Non-Western Art Seminar	3
BA 250	Global Business Management	3
BA 251	International Business	3
BA 395	Global Marketing	3
BA 470	International Accounting	3
EC 351	International Trade and Development	3
EC 353	International Finance	3
EL 122	African Studies	3
EL 145	Multi-Ethnic Literature of the United States	3
HI 211	Sword and Siege: War in Medieval Europe	3
HI 213	Mystics, Maids, and Monarchs: Women in Medieval Europe	3
HI 232	Race and Ethnicity in Historical Perspective	3
PL 303	Eastern Thought	3
PS 341	Global Terrorism	3
PS 343	Comparative Politics	3
SO 200	Race and Ethnicity	3
TH 380	World Religions	3
TH 385	Buddhism	3

Additions and substitutions may be made with consent of advisor.

Philosophy

Eugene V. Torisky Jr., Chairperson  
Eric Duffy; Michael Krom, George H. Leiner, Justin Nolan, O.S.B., Margaret Watkins, Mark Wenzinger, O.S.B.

Professor Emeritus: Sebastian Samay, O.S.B.

In the broadest sense of the word, philosophy is simply the human attempt to understand one's life and place within the cosmos. Key to this enterprise is gaining deeper insight into the cumulative intellectual history of humanity. To philosophize means to clarify one's experience through reflection and then to act with resolution. In order to grow in human stature, one must become thoughtful, and must possess a more than everyday understanding of one's world, a more than mechanical image of oneself, and a more than routine familiarity with the moral realm.

Considered from this point of view, philosophy is both easy and difficult; easy, as at the outset it only asks that we think; difficult, as sustained, efficacious thinking demands courage, patience, and an almost unlimited degree of openness.

In preparing its majors to receive the Bachelor of Arts Degree, the Department of Philosophy focuses principally on the needs of those who will be pursuing further graduate studies in philosophy and then ultimately a profession in our cognate field. Students who earn degrees from our department acquire a strong historical, thematic and methodological foundation in philosophy, a preparation which equips them with the skills to excel. However, our horizon is expansive—it further embraces those who seek what the American Philosophical Association calls “a valuable and indeed paradigmatic ‘liberal education’ major.” Our students develop not only sound historical knowledge of the field but are challenged to critically engage their world with solid analytic abilities and imaginative, synthetic solutions to problems which present themselves. They will be prepared to offer both abstract analyses as well as concrete proposals. Our students are well equipped to go into life as independent learners, as contributors to a wide variety of fields, and to commence graduate studies in the humanities, social sciences and the law.

While we provide our majors with a rigorous and stimulating undergraduate experience, this is but part of our task. Philosophy plays an integral role in the education of all undergraduates at a Benedictine college. We gladly work with each student in their core courses in philosophy to develop deeper insights into their personal lives and the cumulative history of humankind. When these initial encounters spur further interest, we invite students to join us in either the major or minor degree program.

Philosophy Learning Objectives

- The Philosophy Department helps its majors and minors achieve the following goals:
- Develop a sophisticated understanding of philosophical thought in its historical context, exploring important philosophical systems charitably and accurately;
  - Foster habits of logical thinking and critical analysis to analyze arguments, evaluate positions, and use reason in everyday life;
  - Understand basic and advanced ethical theories and apply their principles to concrete problems in individual and social life;
  - Synthesize related philosophical ideas from different sources, and engage them with students' own experience; and
  - Skillfully articulate conceptual elements of philosophical thought in written and oral form, and develop high-level skills of independent scholarship.

## Requirements for a Bachelor of Arts Degree in Philosophy

(See Core Curriculum requirements.)

### Requirements for the Major: (33 credits)

33 credits in Philosophy, structured in the following way\* (These are in addition to the Core requirement of 1st Philosophy PL 101):

PL 100	Ancient and Medieval Philosophy	3
PL 120	Logic	3
PL 200	Modern Philosophy	3
PL 205	Contemporary Philosophy	3
PL 215	Ethics	3
PL 450	Senior Thesis	3

\*Those applying for graduate studies in philosophy are also required to complete *Symbolic Logic, PL 250*. All other majors are strongly encouraged to complete this course.

In addition to the 18 credits in these six courses, 15 credits of work in five further courses, chosen in consultation with the student's advisor from the course offerings of the Philosophy Department.

Typically, this would include PL 220 Theories of Knowledge, and PL 230 Metaphysics. Students would also generally choose at least two courses from the following: PL 210 Philosophical Anthropology, PL 280 Thomistic Philosophy, PL 235 Philosophy of God, PL 245 Philosophy of Science. Students wishing to extend their study of ethics are encouraged to enroll in PL 216 Ethical Problems, PL 217 Environmental Ethics, or PL 218 Bioethics.

### Semester Review

Having chosen philosophy as a major, each student will meet with his or her advisor to review the work of the previous semester. This is generally done each January for the previous fall semester, and in September for the previous spring semester.

As a part of this review, the student will evaluate his or her own performance in a guided, written statement. This statement functions primarily as a résumé of work in the major, but extra-departmental work may also be assessed. During the review, the student presents two pieces of written work from the previous semester, at least one of which will be from a philosophy course (provided that the student had taken a course in the field the previous semester).

### Senior Thesis

Each major is required to complete a Senior Thesis. During the third semester before graduation each student works with his or her faculty advisor to form a Senior Thesis Committee and choose a topic for the thesis. The student, with the guidance of the Thesis Committee, 1) plans the project and 2) carries out the basic research. During the second semester before graduation the student enrolls in PL 450 Senior Thesis and the bulk of the writing occurs, with a complete intermediate (non-rough) draft presented to the Committee for comments. During the student's final semester any remaining work is completed, with the final draft completed by the ninth week of the semester in which the student expects to graduate. The finished Senior Thesis is evaluated by the Thesis Committee, which includes the Chair of the Department. By the last week of classes before graduation, each student will give an oral presentation of the project to departmental faculty and students, responding to questions and comments. Assessed as a whole, acceptable work is deemed to have "passed," "passed with distinction," or "passed with highest distinction."

### Electives:

An appropriate choice of electives in fields outside of philosophy can add considerable focus to the study of philosophy. For this reason the Department requires the choice of electives to be done in close consultation with the student's advisor. Language studies and accompanying foreign study are especially encouraged.

### Requirements for the Minor:

18 credits, structured in the following way (These are in addition to the core requirement of 1st Philosophy PL 101):

PL 100	Ancient and Medieval Philosophy	3
PL 200	Modern Philosophy	3
or		
PL 205	Contemporary Philosophy	3
PL 215, 216, 217, or 218	(in Ethics curriculum)	3

Plus nine additional credits chosen in consultation with the student's advisor from the regular course offerings of the Philosophy Department.

### Suggested Minor in Philosophy for Students Majoring in the Department of Theology

Philosophy and Theology have for many centuries been friendly collaborators in the search for meaning and truth. As such, many students majoring in one of these fields have fruitfully studied in the other as well. Students in the Department of Theology have frequently found a minor in Philosophy to be of great support to their present and future work in their chosen field. Below is a suggested pattern of courses designed to be helpful to those students. The specific selection of courses is worked out in consultation with the student's advisor:

PL 100	Ancient and Medieval Philosophy	3
PL 200	Modern Philosophy	3
or		
PL 205	Contemporary Philosophy	3
PL 215, 216, 217, or 218	(One of the courses in our Ethics curriculum)	3
PL 235	Philosophy of God	3
or		
PL 280	Thomistic Philosophy	3
2 courses chosen from the following:		
PL 230	Metaphysics	3
PL 220	Theories of Knowledge	3
PL 210	Philosophical Anthropology	3

### Typical First-Year Schedule:

	Fall	Spring
PL 101 1st Philosophy	3	
PL 120 Logic		3
Foreign Language (intermediate or advanced)	3	3
EL 102/TH 119	3	3
History/Social Sciences	3	3
Social Sciences/Religious Studies/English	3	
Mathematics/Fine Arts		3
All students will take one course designed as a First-Year Seminar which will satisfy a Core Curriculum requirement. PL 101 1st Philosophy as a required course for the Core Curriculum and is additionally a prerequisite for any Philosophy course other than PL 120 Logic.		

## Course Descriptions

### PL 100 Ancient and Medieval Philosophy

Plato and Aristotle have exercised such unequalled influence on the course of Western ideas that the whole subsequent history of philosophy could be considered an extended footnote to their writings. This course, using the thought of Plato and Aristotle as a nucleus, explores the great metaphysical themes of the "One and the Many" as they unfold in both knowledge and the real. It treats of the problems of participation and analogy. The contributions of Plotinus, Augustine, and Aquinas, to the development of these themes are explored. Some considerations, though necessarily less, are given to what these thinkers maintained to be the purpose of human life and the means of achieving it. Three credits.



**PL 101 1st Philosophy**

This course is intended to introduce philosophy to students unfamiliar with the field. Its intent is to provide a coherent sense of the important issues and approaches embraced by philosophy and to do so by setting these in a vital, historical context. Important ideas from the ancient, medieval, modern and contemporary periods will be explored both in their abstract setting as well as in terms of the ways in which they have affected the development of our cultural, scientific and spiritual lives. Three credits.

**PL 120 Logic**

This introductory course seeks to formalize the everyday use of logic to distinguish correct and incorrect forms of reasoning. After setting general terms for argument analysis, the distinguishing features of deductive and inductive arguments are noted. Language as the vehicle of logic is considered, including the purposes and types of definition and recognition of common informal fallacies. The balance of the course is devoted to deduction, with special consideration given to Venn diagrams as a mechanical test of the validity of categorical syllogisms. Three credits.

**PL 200 Modern Philosophy**

This is the period of intellectual history, stretching roughly from the late Renaissance to the latter half of the nineteenth century, that witnessed the birth and development of modern science. The outstanding feature of this history is its persistent preoccupation with the epistemological problems of certitude, verifiability, methods and limits of reliable knowledge. Using these themes as the organizing principles of the course, the views of such thinkers as the following will be considered: F. Bacon, Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant. Three credits.

**PL 205 Contemporary Philosophy**

This course examines the philosophical thought of the 19th and 20th centuries. It takes as its starting point the rebellion against the Kantian world view, and focuses on the increasingly important roles played by history and human individuality in philosophical reflection. In pursuing this theme the approaches of positivism, existential phenomenology, and the Anglo-American analytic movement will be examined. The course considers, among others, such thinkers as Hegel, Marx, Nietzsche, Russell, and Heidegger. Three credits.

**PL 210 Philosophical Anthropology**

The attention of this course is directed at the question: What does it mean to be a human being? The course will systematically examine some of the leading views of human existence set forth over the last 24 centuries. The guiding perspective for the investigation will come from contemporary suggestions. Thinkers of this century have urged that we must pay close attention to the fact that while humans do have the capacity to act independently of the constraints of instinctual and biologically determined behavior, we are embodied, and thus must acknowledge the historical, linguistic, and cultural elements of our being. Within this context, the course will reflect on the objective, subjective, or ultimately fluid character of human nature. It will examine the variously suggested rational, passionate, playful, moral, religious, or gender based character of humanity. This course provides serious and advanced study in the discipline; majors, minors, or instructor permission. Three credits.

**PL 215 Ethics**

Ethics is practical philosophy indicating, in general, what humans ought to do in the light of appropriate rules of conduct and suitable ends. Some fundamental views of right and good are considered in their classical formulations by such thinkers as Plato, Aristotle, Aquinas, Hume, Kant, and Mill. Problems and examples are used to illustrate these views and to provoke judgments regarding concrete issues. Three credits.

**PL 216 Ethical Problems**

This course will consider opposing viewpoints on contemporary issues such as abortion, racism, sexual morality, the environment, capital punishment, hunger, legislation, and public policy. Students will also be asked to review concepts such as subjectivism, psychological and ethical egoism, the relationship between morality and religion, and the possibility of objectivity in ethics. Three credits.

**PL 217 Environmental Ethics**

This course investigates the different ways that human beings think of the environment and the influence that these various conceptions have upon defining what, if any, responsibility human beings have to the natural world. Special attention will be given to the source and meaning of the term 'value' as well as to the specifications that are used to assign or distribute this term. The principal environmental theories that indicate the origin and range of value that will be examined include: anthropocentrism, individualism, holism, biocentrism, ecocentrism, speciesism and ecofeminism. Some practical concerns that will be examined in order to consider the implications of the various value theories are urban growth, poverty, use of natural resources, energy production, food production and distribution, pollution and population control. Three credits.

**PL 218 Bioethics**

This course will examine the ethical issues surrounding such post-modern technologies as genetic manipulation, human and animal cloning, and the "creation" of transgenic organisms as well as the moral dilemmas that result from gene therapy, contraception, stem cell and fetal tissue research, and the use of animals and humans as test subjects. Three credits.

**PL 220 Theories of Knowledge**

This course explores, both topically and historically, the various avenues which philosophical thought has followed in its attempts to understand how humans gain knowledge of themselves and the world in which they are situated. Representative views of classical thought, Continental rationalism, British empiricism, transcendental idealism, 20th-century realism, and phenomenology will be examined. In each case, the structure of consciousness and the relation of consciousness to objects known will be explored. Flowing from this will be a consideration of their respective accounts of perception, conception, memory, judgment, and truth. Throughout the course, each of the views will be critically evaluated as to its adequacy of the human experience. This course provides serious and advanced study in the discipline. Three credits.

**PL 227 Philos & Eros**

In this course participants will seek to explore the puzzling relationship between Eros and philia. We will lay down a foundation by seeking traditional philosophical answers as to how to embrace the paradoxical aspects of love, looking for advice from such diverse thinkers as Plato, Augustine, Rousseau, Hegel, Nietzsche, and Freud. After establishing this footing we will extend our investigation by listening to the counsel of psychologists, psychoanalysts, artists and poets. Finally, we will look to contemporary contributions made by those employing the tools of feminism and poststructural analysis. Interspersed throughout the course we will concretize our theoretical reflections with examinations of specific issues such as the dialectic between the erotic and the pornographic and the multivalenced direction of sexuality. Prerequisite: Two previous courses in philosophy. Three credits.

**PL 230 Metaphysics**

This course is designed to introduce the student to some of the basic metaphysical themes. It will be concerned with various areas of theoretical philosophy, considering questions regarding:

the nature of the world, knowledge and truth, freedom, the mind-body view of man, and various conceptions of God. The approach of the course will be problem-oriented, and the medium will be the views of various major thinkers in Western Philosophy. This course provides serious and advanced study in the discipline. Three credits.

### **PL 232 Aesthetics**

In this course students will consider major theories in the philosophy of art, working to gain a pluralistic understanding of aesthetics. These concepts, from classical, contemporary and post-modern sources, will be applied to works of art from a variety of media. Three credits.

### **PL 235 Philosophy of God**

This course discusses the term "god" as used among different peoples and cultures, with special emphasis, of course, on the Judeo-Christian understanding of it. Distinct from sacred theology, it examines by the light of reason the proofs for the existence of God and related questions. The course also considers modern problems about theism and atheism. Three credits.

### **PL 240 The Influence of Philosophy on Theology, Then and Now**

The course traces some of the effects which Platonic, Aristotelian, and Stoic philosophies have had on such theological questions as the nature of (the Christian) God, God's relationship to the world, the understanding of the human person, as well as some ethical doctrines which permeate Western thinking. Some solutions are suggested. Three credits.

### **PL 245 Philosophy of Science**

This course is designed to address the general question of what it means to take up the world in a "scientific" way. It traces the historical genesis of this special way of knowing, examining how scientific thought came to set itself apart from "non-scientific" engagement with the world. Of particular concern is the division of science, begun in the 19th century, into three branches: the natural, social, and human sciences. The justifications for this division are examined, giving careful attention to their divergence as well as to the question of an underlying commonality. Reflection on the ongoing ramifications of this rift for contemporary life brings the course to its close. Readings will be drawn from across the history of the philosophy of science, including such thinkers as Aristotle, Galileo, Bacon, Comte, Mill, Dilthey, Mach, Carnap, Popper, and Kuhn. Two previous courses in philosophy recommended. Three credits.

### **PL 250 Symbolic Logic**

The course begins with basic propositional logic using truth table tests for arguments, then moves to the validation of arguments with the aid of simplification and inference rules. Attention is then directed to propositional proofs, including indirect and conditional proofs. Basic quantification logic follows, beginning with quantificational formulas, translations, proofs, and refutations. The next step is quantificational logic employing identity and relational translations, and arguments. As time permits, a study of modal logic will follow. Two previous courses in philosophy recommended. Three credits.

### **PL 270 Political Philosophy**

A survey of the history of reflection on fundamental political goods by both classical and modern writers. Readings will normally include, but not be limited to, material from a subset of these philosophers: Plato, Aristotle, St. Thomas Aquinas, Machiavelli, Hobbes, Locke, Rousseau, and Marx. Common themes may

include the nature of law, justice and rights, the social contract, purposes and justifiability of economic institutions, cultural influences on the identification and attainment of social values, the possibility of political objectivity or neutrality, and the like. Three credits.

### **PL 280 Thomistic Philosophy**

The works of Thomas Aquinas are generally regarded as the high-water marks of Medieval Scholasticism, and they continue to have far-reaching effects on both philosophy and theology. In this course the students will read selections from some of Aquinas' major works organized, in general, along the lines developed in the *Summa Theologiae*. Some of the topics to be considered from a philosophical perspective are the following: philosophy and theology; the existence of God, the attributes, names, and powers of God; predestination; the human end, human acts, habits, virtues and vices; law in general and the various kinds of law. Three credits.

### **PL 303 Eastern Thought**

This course is designed to provide an overview of the basic teachings and historical development of major streams of Eastern thought including Confucianism, Daoism and Buddhism. Emphasis will be placed on a comparative approach, noting the complex historical and conceptual relationships to be found between and within the systems. The course will also examine the congruencies (as well as the disparities) of these approaches with important developments in Western thought. Three credits.

### **PL 305 Special Topics in Philosophy**

These courses provide an opportunity for faculty and students to work together in advanced study in areas of particular expertise and interest. Accordingly, the specific topic of these courses will vary from semester to semester. For the current topic, students should consult with the department or Office of the Registrar. Prerequisite: two courses in philosophy or the permission of the instructor. Three credits.

### **PL 350 Independent Study**

Independent study is primarily intended for the student who has advanced past a basic understanding of the field. It provides an opportunity to explore in greater depth and sophistication a specific philosophical topic or question of the student's choice. Selection of the topic of study is initiated by the student, while the structuring of the course is done in consultation with the instructor. Variable credit.

### **PL 450 Senior Thesis**

In this independent study course the student works closely with a faculty advisor to fully develop the capstone project in philosophy, the Senior Thesis. This process prepares the student for work beyond the undergraduate, developing the skills of independent scholarship: informed philosophical research, skillful analysis, thoughtful synthesis and fluent written work. PL 450 is taken in the second semester before graduation. Three credits.

# Physics

Mohamed Anis Maize, Chairperson

Daniel Vanden Berk; Paul Follansbee; David W. Grumbine, Jr.;

John J. Smetanka

Adjunct Faculty: Diane Turnshek

Professor Emeritus: Michael K. Gainer

The overall mission of the Physics Department works in concert with the mission of the College and begins with the cultivation of a love for learning and an appreciation of the inherent beauty in the study of the natural world. The department serves three populations of students each with specific goals; (1) Physics and Physics Education majors, (2) majors in the departments of Biology, Chemistry, Mathematics, and Computer and Information Science, as well as students in the 3-2 Engineering program, and (3) non-science majors. The Department's mission is to prepare Physics and Physics Education majors by developing skills in experimental, theoretical and computational physics so our students are prepared to enter graduate programs in Physics and related fields (for example, Astrophysics, Material Science, and Engineering), obtain a professional and/or technical position in industry, or teach at the high school level.

For students majoring in other departments within the Herbert W. Boyer School of Natural Science, Mathematics, and Computing, the Department's mission is to develop the ability to apply the experimental, theoretical and computational principles of Physics to their specific disciplines. The Department's mission is to fulfill the goals of the core curriculum for students who are non-science majors by promoting scientific literacy, developing a familiarity with the scientific method and creating an awareness of the impact of science on society. For all students, the Department's mission is to stress the conceptual understanding of Physics through discussion, demonstration and experimentation and to develop the ability of the students to effectively communicate their understanding to others.

Two alternative programs are available. The program leading to a B.S. degree in Physics is for students who wish to continue their education in graduate school or to directly pursue careers in the private sector. The Physics Education program certifies students for careers as secondary school physics teachers. Students must contact the Education Department Chairperson for admission to the certification program.

## Physics/Physics Education Learning Objectives

- Knowledge of the fundamental theoretical fields of physics.
- Understanding and practice of experimental nature of physical science.
- Capability to perform independent research.
- Entrance to and performance in graduate and professional schools
- Successful education certification and procurement of positions in secondary schools

## Learning Objectives for Non-Majors

- Other Science Majors: Knowledge and understanding of a broad variety of fundamental physics topics.
- Other Science Majors: Understanding and practice of experimental nature of physical science in fundamental areas corresponding to broad survey of topics.
- Non-Science Majors: Satisfy Tier 1 and 2 core requirements and provide conceptual and knowledge and experimental practice specific to the individual courses.

## Culminating Activity

Students in each program must complete the culminating activity listed as course PH 381. This activity consists of a research project under the direction of a faculty member or an approved internship. Several projects in recent years have been awarded student research grants, students have traveled to present their results at regional and national conferences, while some projects have resulted in a publication in a scientific journal. Successful completion of this activity, typically including a senior thesis, is required.

## Requirements for a Bachelor of Science Degree in Physics and Physics Education.

(See Core Curriculum requirements.)

### Major Requirements (B.S. in Physics) (66 credits):

PH 100	Physics Seminar	1
PH 111	General Physics I	3
PH 112	General Physics II	3
PH 113	General Physics I Laboratory	1
PH 114	General Physics II Laboratory	1
PH 211	Modern Physics	3
PH 213	Modern Physics Laboratory	1
PH 215	Thermodynamics	3
PH 221	Classical Mechanics	3
PH 241	Optics	3
PH 243	Optics Laboratory	1
PH 244	Advanced Laboratory	1
PH 251	Electrical Circuits and Electronics	2
PH 252	Electromagnetic Fields	3
PH 311	Nuclear Physics	3
PH 322	Quantum Mechanics	3
PH 341	Condensed Matter Physics	3
PH 370	Mathematical Physics	3
PH 381	Research	1
MA 111-113	Calculus I-III	12
MA 114	Differential Equations	4
CH 101, 103	General Chemistry I and Laboratory	4
CH 102, 104	General Chemistry II and Laboratory	4
A thesis is required in the senior year.		

### Major Requirements (B.S. in Physics Education) (66 credits):

PH 100	Physics Seminar	1
ES 106	Physical Geology	3
ES 107	Physical Geology Laboratory	1
PH 111	General Physics I	3
PH 112	General Physics II	3
PH 113	General Physics I Laboratory	1
PH 114	General Physics II Laboratory	1
PH 151	Astronomy	3
PH 153	Astronomy Laboratory	1
PH 211	Modern Physics	3
PH 213	Modern Physics Laboratory	1
PH 215	Thermodynamics	3
PH 221	Classical Mechanics	3
PH 241	Optics	3
PH 243	Optics Laboratory	1
PH 244	Advanced Laboratory	1
PH 251	Electrical Circuits and Electronics	2
PH 322	Quantum Mechanics	3
PH 381	Research	1
MA 111-113	Calculus I-III	12
MA 114	Differential Equations	4
CH 101, 103	General Chemistry I and Laboratory	4
CH 102, 104	General Chemistry II and Laboratory	4
BL 150-151	General Biology and Laboratory	4
A thesis is required in the senior year.		

See Education Department section of **Bulletin** for Education course requirements.

#### Requirements for a Physics Minor: 19 credits

PH 111	General Physics	3
PH 112	General Physics II	3
PH 113	General Physics Laboratory I	1
PH 114	General Physics Laboratory II	1

and a minimum of 11 credits selected from courses numbered above PH 200, of which at least one must be PH 243, PH 244, PH 213 or PH 251.  
 MA 111-112 Calculus I-II are prerequisites for General Physics.  
 MA 113-114 Calculus III-IV are recommended electives.

#### Typical First-Year Schedule: 32 credits

##### Fall Semester

PH 100	Physics Seminar	1
MA 111	Calculus I*	4
CH 101	General Chemistry I*	3
CH 103	General Chemistry I Laboratory*	1
TH 119	First Theology	3
or		
EL 102	Language and Rhetoric	3
Core Curriculum Course		3

All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

##### Spring Semester

CH 102	General Chemistry II*	3
MA 112	Calculus II*	4
CH 104	General Chemistry II Laboratory*	1
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
CS 110	Computing and Information Science I	3
A Core Course		3

\*These courses fulfill the Core Curriculum requirements.

## Course Descriptions

### PH 100 Physics Seminar

Discussions of topics in contemporary physics. One credit.

### PH 103 Introduction to Physics

This course introduces students to the methods and techniques used to scientifically describe the world around us. Special emphasis is placed on the field of mechanics – the study of motion. Students become comfortable solving general problems such as projectile motion, energy, and momentum. These problems are solved using only algebra – neither trigonometry nor calculus is a prerequisite. Other topics may include modern physics, optics, electricity and magnetism, and fluid motion. Offered spring semester. Three credits.

### PH 104 Introduction to Physics Laboratory

This course consists of hands-on laboratory exercises chosen to illustrate concepts of classical and modern physics. Topics may include falling objects, the motion of a pendulum, collisions, projectile motion, the physics of flight, and simple optics. Offered in conjunction with PH 103 Introduction to Physics. One credit.

### PH 108 Our Dynamic Planet

This seminar studies the ever-changing earth, our home in space, from an Earth's systems perspective. Three topics in particular are investigated in detail: plate tectonics, the development of life and its evolution, and global climate change. Scientific issues such as the determination of the age of the earth, biological evolution, the

mass extinction of the dinosaurs, and the emission of greenhouse gases causing global warming will be examined. Students will also explore how the scientific study of the earth impacts public policy. For non-science majors. Three credits.

### PH 109 Our Dynamic Planet Laboratory

This course consists of hands-on laboratory exercises chosen to illustrate and reinforce the topics presented in PH 108 Our Dynamic Planet. These exercises may include rock and mineral identification, geological history, climate modeling, mapping and remote sensing, plate tectonics and plate boundaries, stream erosion and deposition, and local fossil identification. Some laboratory exercises will include field trips to off-campus locations. Offered in conjunction with PH 108. One credit.

### PH 111 General Physics I

This is the basic course for those majoring in the physical and biological sciences, mathematics and engineering. Vector methods, mechanics, and energy are studied. Prerequisite: MA 109 or MA 111. Offered fall semester. Three credits.

### PH 112 General Physics II

A continuation of PH 111. Electricity and magnetism, wave motion, optics and topics from modern physics are covered. Prerequisite: PH 111. Offered spring semester. Three credits

### PH 113 General Physics I Laboratory

Laboratory to accompany PH 111. Laboratory experiments include applications to kinematics, Newton's Laws, and energy. One credit.

### PH 114 General Physics II Laboratory

Laboratory to accompany PH 112. Laboratory experiments include applications to optics, electricity, magnetism, and wave mechanics. One credit.

### PH 131 Life and the Universe

Are we alone in the universe, or is the universe teeming with life? How does the search for life in the universe help us understand the world around us, our origins, and our purpose? These and related questions will be addressed using insights from the physical sciences, life sciences, history, and other disciplines. Science topics will be introduced assuming only basic mathematical skills. Three credits.

### PH 133 Life and the Universe Laboratory

A variety of simple experiments and observations will be performed that will add to our understanding of the universe, life on Earth, and the possibility of life elsewhere in the universe. Offered in conjunction with PH 131. One credit.

### PH 151 Astronomy

This course provides an introduction to the study of Astronomy focusing on the development of our understanding of the universe. Subjects of emphasis include the development of classical mechanics as an explanation of the motion of the planets; the structure, formation and evolution of the sun and other stars; and our modern understanding of cosmology. This course provides a more advanced application of the scientific process. Prerequisite: MA 104. Three credits.

### PH 153 Astronomy Laboratory

This course consists of hands-on laboratory exercises chosen to illustrate topics in modern astronomy. Topics of the exercises may include stellar photometry, observation and measurement of star clusters and galaxies, and observation of the Moon and planets. Offered in conjunction with PH 151 Astronomy. One credit.

**PH 171 It's Not Rocket Science**

This course introduces the physical principles involved in the design and flight of rocket propelled vehicles with hands-on experience building and flying model rockets. The course covers Newton's description of motion, aerodynamics, the operating principles of rocket motors, the history of space flight, and the legal issues surrounding hobby rocketry. Must be taken in conjunction with PH 173. Three credits.

**PH 173 It's Not Rocket Science Laboratory**

Laboratory course to accompany PH 171. Students develop a working knowledge of the measurement techniques and design strategies necessary to test, launch, and recover model rockets. Students work in groups to design, build, and test a model rocket to meet a challenge goal similar to the Team America Rocketry Challenge. One credit.

**PH 195 History of Vision**

This course investigates the development of models for light and vision as it took place in three civilizations: the ancient Greeks, the Middle East, and Renaissance Europe. Attention is given to the relationship between science and history, philosophy, psychology and religion. Special attention will be given to the work of the Arab scholar Alhasan ibn al-Hytham. No previous knowledge of optics is required. Interest in writing, reading and class discussion is necessary to succeed in this course. Prerequisite: MA 104. Three credits.

**PH 197 History of Vision Laboratory**

This laboratory examines the experimental physics that is associated with the fundamentals of light and optics. Experiments will cover topics on the movement and nature of light, reflection, refraction, radiation, optical properties of matter and more. To be taken with PH 195. One credit.

**PH 211 Modern Physics**

A survey of atomic and nuclear physics including quantum physics. Prerequisites: PH 112, MA 112. Must be taken with PH 213. Offered fall semester. Three credits.

**PH 213 Modern Physics Laboratory**

Laboratory to accompany PH 211. Laboratory experiments stress basic subjects such as atomic and classical scattering, the particle and wave nature of both radiation and matter, radioactivity, and spectroscopy. One credit.

**PH 214 Introduction to Fluids and Thermodynamics**

In the fluids part of the course, we study the fundamentals leading to the continuity equation and Bernoulli's equation. A detailed study of the two equations with application will then be accomplished. The thermodynamics part will be devoted to detailed study of the Kinetic Theory of gases and the first and second laws of thermodynamics with applications. Prerequisite: MA 111. Offered every spring. Three credits.

**PH 215 Thermodynamics**

A review of the basic concepts of classical thermodynamics, followed by an introduction to the fundamental aspects of statistical mechanics. Topics include the laws of thermodynamics, heat engines, the statistical interpretation of temperature and entropy, the Boltzmann distribution, thermal radiation, Fermi and Bose gases, and kinetic theory. Prerequisite: PH 112. Offered alternate years. Three credits.

**PH 221 Classical Mechanics**

A study of the fundamental principles of the motion of particles and rigid bodies, including vibrational motion, an introduction to the equations of Lagrange and Hamilton, and the two-body problem. Prerequisites: PH 112, MA 112. Offered alternate years. Three credits.

**PH 223 Mechanics: Statics**

Forces in a plane and in space. Equivalent systems of forces. Equilibrium of rigid bodies. Centroids and centers of gravity. Moments of inertia. Analysis of structures. Friction. Vectors used extensively. Prerequisites: PH 111 and MA 112. Cross-listed as MA 223. Offered fall semester. Three credits.

**PH 224 Mechanics: Dynamics**

Kinematics of particles. Kinetics of particles by: (a) force, mass and acceleration, (b) work and energy, (c) impulse and momentum. Kinematics of rigid bodies. Plane motion of rigid bodies by: (a) forces and accelerations, (b) energy and momentum methods. Mechanical vibrations. Vectors used extensively. Prerequisite: MA 223. Cross-listed as MA 224. Offered spring semester. Three credits.

**PH 225 Strength of Materials**

Strength of Materials is an introductory materials science and engineering course. Students learn about the influence of the structure of materials and inherent defects in materials on ultimate properties and performance. The emphasis is on strength and failure of metals, ceramics, and polymers, but electrical and thermal properties are also considered. Case studies are used to illustrate many of the instructional modules. Prerequisites: CH 102, MA 111. Three credits.

**PH 226 Introduction to Thermal Energy and Fluids**

Introduction to thermal energy and fluids is an introductory course in engineering thermodynamics and fluid mechanics. Students will learn about mass energy conservation laws (Bernoulli's Equation, First and Second Laws of Thermodynamics) and how to apply them to energy production and use. Emphasis will be on efficiencies and fundamental technical limitations facing various energy conversion options. The student will first be exposed to the laws of thermodynamics and fluid mechanics. The course will then offer an overview of application of these laws to various energy technologies, including fossil fuel based and nuclear based as well as alternative energies such as solar and wind. Prerequisite: CH 101 or PH 112 or BL 150 and MA 110 or MA 112.

**PH 241 Optics**

A study of the basic principles of physical optics. Studies in refraction, polarization, interference, and diffraction based on the theory of electro-magnetic radiation. Prerequisite: PH 112. Offered alternate years. Three credits.

**PH 243 Optics Laboratory**

Laboratory to accompany PH 241. Topics include lenses, mirrors, and prisms, as well as reflection, refraction, polarization, interference, diffraction, and holography. One credit.

**PH 244 Advanced Laboratory**

Experiments in various fields of physics focused on developing and applying a variety of common data acquisition and analysis skills. One credit.



### **PH 251 Electrical Circuits and Electronics**

A study, with laboratory, of the fundamental aspects of electrical and electronic circuits. The course includes an overview of impedance, discrete semiconductor devices, operational amplifiers, sequential and programmable logic, memory devices, and microcontrollers. It also includes fabrication of printed circuit boards and soldering techniques for both through-hole and surface-mount components. Offered fall semester. Prerequisites: PH 112 and MA 112. Two credits.

### **PH 252 Electromagnetic Fields**

An intermediate course in electromagnetic field theory. Extensive use is made of vector calculus. The differential forms of Maxwell's equations are developed and investigated. Prerequisites: PH 112, and MA 114. Offered every other spring. Three credits.

### **PH 311 Nuclear Physics**

This course concentrates on the study of nuclear properties, nuclear models, conservation laws of nuclear reactions, and the solution of the three dimensional Schrödinger equation. Prerequisite: PH 211. Offered every other spring. Three credits.

**PH 322 Quantum Mechanics** An introduction to quantum theory. The Schrödinger equation is solved for various simple potentials. Includes a study of identical particles, angular momentum, and spin. Prerequisite: PH 211. Offered alternate years. Three credits.

### **PH 341 Condensed Matter Physics**

A study of the thermal, electrical, magnetic and optical properties of solids. Prerequisite: PH 211. Offered every other spring. Three credits.

### **PH 350 Independent Study**

May be repeated. Variable credit.

### **PH 360 Honors Course**

The subject and content will be specified when offered.

### **PH 370 Mathematical Physics**

An advanced course in the mathematical analysis of physical systems. Methods using linear algebra, complex variables, Fourier analysis, Laplace transforms, and other special functions are studied. Analytical software, such as Mathematica, may be used. Prerequisites: PH 211, and MA 114. Offered every other spring. Three credits.

### **PH 381 Research**

Investigation and experimentation or an approved internship leading to the completion of the required senior thesis. One credit.

### **PH 550 Physics Internship**

Work experience program extending the learning experience beyond the college into the world of work. Students are employed in an area related to their academic endeavor. Academic credits are awarded according to the extent of the work experience. Students may or may not be paid depending on the site. The purpose of the program is to integrate academic studies and employment activities. May be repeated. Variable credit.

## **Politics**

*Bradley C. S. Watson, Chairperson*

*Jerome C. Foss; Jason R. Jividen; Gabriel S. Pellathy*

*Adjunct Faculty: Lee Demosky; Cecilia Dickson; Sacha A. Katuria; Mary Beth McConahey; Gabriel Pellathy, Jr.; Richard Saccone*

The Politics program approaches the study of politics as both philosophical reflection and analytical art. From the study of ancient, modern, and contemporary sources, students are led to examine critically the ideas and events that have influenced the formation of political principles, government organization, characteristics of citizenship, and social policy. Along with philosophical grounding, the program seeks to provide analytical competence to understand the contemporary political environment, to address public policy issues, and to contribute intellectually and practically to the sociopolitical challenges of our times. The Politics Department also seeks to provide special educational opportunities for its students in the study of political ideas and public affairs through collaboration with the Center for Political and Economic Thought.

The systematic study of political thought and organization contributes to a well-rounded liberal arts education and helps prepare students to face intelligently the complexities of modern society. The Politics Department seeks to provide a comprehensive background in the discipline while especially concentrating on American government and politics, political thought, and public policy and administration. The major in Politics is designed to accomplish several goals: to prepare students for professional studies such as law, public administration, legislation, public policy, international affairs, and related fields; to prepare students for graduate studies that are required for careers of scholarship and teaching; and to help prepare students considering immediate employment in government service, government relations, business, voluntary organizations, public affairs, and politics.

Students with a major in Politics are eligible to participate in a cooperative program between Saint Vincent and Duquesne Law School that allows students to earn their bachelor's degree and Juris Doctor degree in six years. In this program, qualified students who, with high grades, complete their first three years of study at Saint Vincent, fulfilling the Core Curriculum requirements and the requirements for the major, may transfer into the Law Program and complete the requirements for the Juris Doctor degree in three years. For details, see the explanation of this program in the Pre-Law section of the *Bulletin*.

The Politics major's culminating activity is a senior thesis. Politics majors may receive either the Bachelor of Arts or Bachelor of Science degree (see Core Curriculum requirements for each degree)

#### **Politics/Public Policy Learning Objectives**

- Prepare students for graduate studies required for careers in scholarship and teaching.
- Improve student writing and analytical thinking abilities.
- Prepare students for professional studies in areas such as law, public administration, public policy formulation, international affairs, and related fields.
- Prepare students for immediate employment in business and government.

### Requirements for a Bachelor of Arts Degree in Politics:

(See Core Curriculum requirements.)

The social science core is satisfied by completing the major requirements.

#### Major Requirements (33 credits)

PS 100	Principles of American Politics	3
PS 135	Classical Political Thought	3
PS 136	Modern Political Thought	3
PS 242	International Politics	3
or		
PS 343	Comparative Politics	3
PS 290	Institutions	3
PS 336	American Political Thought	3
PS 339	Constitutional Law: National Powers	3
or		
PS 369	Constitutional Law: Civil Rights and Liberties	3
PS 345	Domestic Public Policy	3
PS 480	Senior Thesis	3
PS —	Politics elective (Any PS class except PS 550)	6

### Requirements for a Bachelor of Science Degree in Politics:

(See Core Curriculum requirements.)

The social science core is satisfied by completing the major requirements.

#### Major Requirements (40 credits)

PS 100	Principles of American Politics	3
PS 135	Classical Political Thought	3
PS 136	Modern Political Thought	3
PS 242	International Politics	3
or		
PS 343	Comparative Politics	3
PS 290	Institutions	3
PS 336	American Political Thought	3
PS 339	Constitutional Law: National Powers	3
or		
PS 369	Constitutional Law: Civil Rights and Liberties	3
PS 345	Domestic Public Policy	3
PS 480	Senior Thesis	3
PS —	Politics elective (Any PS class except PS 550)	3
BA 350	Statistics I	3
EC 360	Econometrics or BA 351 Statistics II	3
MA 109/111	Calculus I	4

#### Minor in Politics (pre-law minor)

A minor in Politics requires 18 credits. The following six courses are required:

PS 100	Principles of American Politics	3
PS 135	Classical Political Thought	3
or		
PS 136	Modern Political Thought	3
PS 290	Institutions	3
PS 336	American Political Thought	3
PS 339	Constitutional Law: National Powers	3
or		
PS 369	Constitutional Law: Civil Rights and Liberties	3
PS 345	Domestic Public Policy	3

Variations from above are possible with permission of the Chair of the Politics department. A student may choose, with the departmental advisor and with the consent of the Chair, a program designed to meet individual objectives

### Public Policy

Courses from both economics and Politics have been combined to create this major. The major emphasizes the analysis of public institutions and policy formulation. See the Public Policy listing in this *Bulletin* for information concerning this major.

### Pre-Law

The Politics Department offers courses by trained lawyers. Students participate in the PreLaw Club, where students meet members of the Bench and Bar, including many Saint Vincent College graduates. Students interested in law and legal internships should contact the PreLaw advisor, Dr. Gabriel Pellathy.

### Graduate Study

Candidates for the B.S. or B.A. degree who plan to pursue a Ph.D. in Politics generally have two options in graduate school—they must show competence in two foreign languages or have a reading knowledge of one language and quantitative skills. Competence in two foreign languages implies that candidates are fluent in one and have reading knowledge in the other. We suggest that B.A. candidates consider taking foreign language courses beyond the second intermediate level. The quantitative skill requirement for graduate school varies.

### Public Affairs and Public Administration

For those seeking M.A. degrees in public affairs and public administration, it would be advantageous to complete BA 100, BA 101, EC 201, EC 202, BA 350, and EC 360. Students should have further discussions with their advisors.

### International Affairs

Those students who intend to pursue a master's degree in international affairs are strongly encouraged to complete two languages, EC 201, EC 202, BA 350, EC 360, EC 351, and EC 353.

### Internship Programs

Internships in the third and fourth years are recommended. Majors are welcome to apply for internships and to work with the Center for Political and Economic Thought. The State of Pennsylvania has internships available in Harrisburg, and the department will aid qualified students in acquiring them. Local part-time internships are also feasible—Career Services will coordinate and assist in student placement. Politics students interested in such internships for credit will need the approval of the School Dean. In addition, the Department must be convinced that benefit will accrue to both the student and the cooperating body. The number of credits granted for the internship is decided on an individual basis, not to exceed three credits in a semester. Internships are Pass/Fail and limited to a total of six credits. See the Business Administration section of this Bulletin for a detailed explanation of Internship requirements for McKenna School students. Students must register for PS 550, Internship.

### Departmental Activities

Depending on their interest and initiative, students are encouraged to join activities such as the Politics Club, Pre-Law Club, the Mock Trial Team, the staff of the Center for Political and Economic Thought, the Republican Club, and the Democrat Club. The SVC Mock Trial team is quickly becoming nationally recognized—we compete against and have defeated numerous Ivy League teams. Other recommended activities include attending relevant lectures sponsored by the Center for Political and Economic Thought on this campus.

Job Opportunities After Graduation

Politics majors interested in civil service jobs should take both the federal and state civil examinations. Availability of positions in these areas varies from year to year, depending upon government's hiring practices. Specific federal and state government agencies may have their own entrance examinations. A student going into government service might find it an advantage to take a general Politics program with a minor in Public Administration. For other job opportunities in the private sector, please consult Career Services.

Teacher Preparation

See the Education Department for teacher certification requirements in Early Childhood Education, Elementary Education, and Secondary Education. Interested students must contact the Education Department Chairperson and confer with their academic advisor. All programs begin in the sophomore year by registering for ED 100: Foundations of Education.

Independent Study Course

It is possible, with the approval of the School Dean, to do individual research projects/papers for credit. Students register for PS 500, taking not more than three credits each semester.

Typical First-Year Schedule

	Fall	Spring
PS 100 Principles of American Politics	3	
Foreign Language (intermediate or elementary if needed)	3	3
PS 135 Classical Political Thought	3	
PS 136 Modern Political Thought		3
EL 102 Language and Rhetoric	3 or	3
TH 119 First Theology	3 or	3
College Core	0-6	0-9

All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

Course Descriptions

PS 100 Principles of American Politics

Politics raises fundamental questions: how ought we, as human beings, to live? Put another way, what is the nature of good and evil, right and wrong, justice and injustice? Implicit in these questions, at the practical level of government, are further questions as to how we in fact live, how we should organize ourselves in communities, and who ought to govern in the communities in which we, as political beings, dwell. The American constitutional order represents one set of answers to these fundamental questions. This course examines the genesis of this constitutional order through a close study of the writings, speeches, and deeds of those who were responsible for its creation. It also elucidates the relationship of the regime to the larger tradition of Western political thought. The course will aid students in understanding the American regime as its founders understood it and in evaluating this understanding. The course will also pay attention to the extent to which the regime as it currently operates either does or does not reflect this original understanding. Offered every semester. Three credits.

PS 121 National Government

A political analysis approach to the federal system of American national government is made. The traditional branches of the national government are thoroughly examined. The student is expected to acquire a strong understanding of the Constitution. However, serious changes are taking place in both the nation and the modern world which affect governance. A critical approach will consider procedures, issues, and policy proposals to develop understanding of the realities of national politics and policy. Offered fall semester. Three credits.

PS 135 Classical Political Thought

A survey of the basic principles of political philosophy from the Western tradition. This course examines fundamental ideas about the political good suggested by classical philosophers. Readings will normally include selections from Plato, Aristotle, Augustine, and Aquinas. Offered fall semester. Three credits.

PS 136 Modern Political Thought

A survey of the basic principles of political philosophy from the Western tradition. This course examines fundamental ideas about the political good suggested by modern philosophers. Readings will normally include selections from Machiavelli, Hobbes, Locke, Rousseau, Kant, Hegel, and Nietzsche. Recommended: PS 135. Offered spring semester. Three credits.

PS 200 Profiles in Statesmanship

Drawing on classical and modern sources in political philosophy, political biography, and literature, this course will examine the ideas and actions of great statesmen. Confronting the most complex and often perilous circumstances imaginable, these political and military leaders altered the direction of history. This course might include readings by or about Pericles, Aristotle, Cicero, Plutarch, Charlemagne, Shakespeare, Elizabeth I, Gibbon, Burke, Washington, Hamilton, Webster, Lincoln, Marshall, MacArthur, Churchill, Roosevelt, and Thatcher, among others. Questions as to the nature of statesmanship – its practices, principles, and virtues – as well its place in democratic times, will be raised. The course should be of particular interest to anyone concerned with leadership and the elements of human greatness, including students of politics, business, history, philosophy, English, psychology, and theology. Three credits.

**PS 222 State and Local Government**

The structures, functions, and relationships of the various units of state and local government are presented, and their linkage to the federal government is analyzed. Important policy issues are analyzed and office-holders are invited to speak in class. A term paper on a local or state unit or function, or a profile of an office-holder, will be required. Offered spring semester. Three credits.

**PS 228 The Ideas of Freedom: Politics, Philosophy, Economics, and Theology**

The humanities and social sciences – including philosophy, politics, economics, and theology – are indispensable to a liberal education. Familiarity with the individual disciplines is reinforced by interdisciplinary courses such as this which introduce students to the basic questions and truth claims informing civilization. Liberal education is oriented toward overall human excellence, which presupposes an ability to identify fundamental problems and to think them through clearly and comprehensively. The core texts of Western civilization provide one means whereby this precision of thought can be inculcated. This course provides a basic introduction to some major figures, ideas, and concepts related to the idea of freedom in Western civilization, from early Greece and the Near East to contemporary times. In so doing it provides a foundation on which students can begin to see the interrelationships among their own areas of interest and other specialized fields of knowledge, and among all specialized fields of knowledge and the larger questions of human nature, opinion, knowledge, and truth. Students will be required to attend a number of special lectures, mainly on Wednesday evenings. Three credits.

**PS 242 International Politics**

This course studies the process of international politics from a variety of perspectives. The three levels of international politics are analyzed; the different state and non-state actors are examined; the balance of power concept and its alternatives are addressed; and the future of the national state system is examined. Several major models commonly used to understand the international system are explored. Not recommended for first-year students. Prerequisite: PS 121. Offered fall semester. Three credits.

**PS 261, 262, 263, 264 Topics in Political Philosophy**

This seminar style course concentrates on a particular topic in political philosophy. Topics vary from year to year, and typically include an in-depth examination of a particular work, philosopher, or idea of central significance to the development of political thought or practice. May be repeated. Three credits

**PS 290 Institutions**

This course examines the institutions (i.e., Congress, the Presidency, and the Courts) of American government in the order that they are presented in the United States Constitution. The Constitution itself, thus, serves as the guide. Students read relevant chapters from *The Federalist* in order to gain a full appreciation of the aims of the Founders in terms of the design and intent of the governing institutions. Students delve into a good deal of relevant literature, both primary and secondary in nature. Offered fall semester. Three credits.

**PS 300, 301, 302, 303 Introduction to Legal Reasoning I-IV**

This course introduces the student to various fields of the law, especially the objectives and reasoning pursued in criminal law, contract law and negligence law. The proper ways of stating a case and presenting it to a court will be fully discussed, and the merits and weaknesses of illustrative cases will be subjected to comprehensive analysis. The course is not only a preparation for those wishing to take the Law School Admission Test (LSAT), but a background for participation in College Mock Trial team competition. Each class (I to IV) has a different case associated with it.

Pass/Fail option only. Prerequisite: must be on Mock Trial team. Offered fall semester. One credit per semester up to four total credits.

**PS 310 Public Opinion, Parties, and Elections**

Examines the role of public opinion in contemporary politics and its influence on public policy. This influence is examined by addressing elections and the operation of the party system, as well as the use of polls and the role of the media. Prerequisite: PS 100. Three credits..

**PS 336 American Political Thought**

A study of important themes and/or developments in American political thought from the Civil War to the present. A key theme will be the change from Madisonian constitutionalism to the Progressivism of the 20th century; the course will examine the political ideas that underlie this transformation. Subjects to be addressed include the nature of political equality, social Darwinism, pragmatism, Progressivism and its critics, constitutional interpretation, and the "Reagan Revolution." Prerequisite: PS 100. Offered fall semester. Three credits.

**PS 339 Constitutional Law: National Powers**

Analysis of the historical development of American constitutional law dealing with powers of the national government. U.S. Supreme Court decisions regarding issues of federalism, separation of powers, executive authority, national security and war, the commerce clause, etc. will be considered. Debates in constitutional interpretation and the intended role of the US Supreme Court may also be examined. Offered fall semester. Three credits.

**PS 341 Global Terrorism**

This course analyzes the growing phenomena of Terrorism. Students examine diverse perspectives from governments, leading experts and the terrorists themselves. The course covers the source and growth of terror, tactics of terror, key terrorists incidents, specific terrorist groups and profiles of key individual leaders within groups. Students study and discuss government policy related to terror including how the U.S. and other countries counter terrorism. Finally, the course examines the social and political problems associated with terrorism. Three credits.

**PS 343 Comparative Politics**

This course offers an examination of different political systems and how they compare with each other. Students study how varying forms of government affect the lives of people and how it forces nations to react to each other. Students will be asked to select one of more systems for closer analysis and report their research in a written paper. Students also study the major problems facing the international community and how each system may approach solutions to them. Three credits.

**PS 345 Domestic Public Policy**

Examines the nature of the administrative state and the public policy process. Considers the political principles, interests, and empirical evidence behind differing policy positions and evaluates their impact. Readings may be from public policy advocates, politicians, commentators and scholars. Offered spring semester. Three credits.

**PS 369 Constitutional Law: Civil Rights and Liberties**

An analysis of federal court decisions dealing with Bill of Rights guarantees, with special emphasis on U.S. Supreme Court rulings. First Amendment issues—free speech, freedom of religion, and freedom of associations, as well as 14th Amendment issues — equal opportunity, voting, and civil rights legislation, are explored. Federal policies and politics in this area are analyzed. Suggested prerequisite: PS 339. Offered spring semester. Three credits.

**PS 370 George Washington Fellowship**

The George Washington Fellows Program is named after our nation's first president in order to focus on the theme of citizenship. Washington emphasized in his writings and addresses that the success of the new American republic would depend upon the nation's ability to become a sacred union of citizens. The Program seeks to attract students interested in scholarly inquiry into the key questions of American citizenship, paying careful attention to the duties and responsibilities of individuals in a free, well-ordered society. Applications for projects in the following areas will be accepted: American political thought, American economic thought, political or economic thought generally, American culture and religion, and American constitutionalism. Zero credit.

**PS 375 International Law**

This course focuses on international law and policy, as international organizations and transnational governance continue to impact transactions to a greater degree. We will examine treaties of international law, to include the GATT and the WTO, and review specific trade laws and case studies considering the relationship between trade law and other regulatory areas including product standards and intellectual property protection. This course will also address U.S. trade policy and trade agreements, unfair trade practices, political restrictions on trade, and national security implications of exporting technology. Offered spring semester. Three credits.

**PS 390 Environmental Law and Policy**

A survey of the history and present status of laws seeking to establish acceptable safety levels for air, water, chemicals, and land use. Methodologies of standard-setting, alternate policies, financial costs, and future developments will be discussed. Offered fall semester. Three credits.

**PS 480 Senior Thesis**

Facilitates and supervises the writing of the senior thesis, which is the culminating project for Politics majors. Special care will be taken to aid students in utilizing their research and writing skills so that they may produce a high quality thesis. Offered spring semester. Three credits.

**PS 500 Independent Study**

Such study involves research in areas of special interest to students, under faculty supervision. Offered to those students whom the department judges ready for such responsibility. May be repeated. Variable credit (not to exceed three credits per semester).

**PS 550 Internship**

Internships constitute a practicum to supplement academic learning. See the description above. The number of credits and the hours involved vary depending on the nature of the internship. Please see the Career Development Center Staff for current procedures that must be followed, in addition to securing departmental approval and supervision. Pass/Fail option only. Students are subject to the McKenna School's Student Guide To Internship Procedures And Requirements. See the Business Administration section of this **Bulletin** for a detailed description. May be repeated. Variable credit up to three credits.



# Pre-Health Professions

James G. Barnett, Ph. D., Chairperson of Pre-professional Health Committee.

The pre-health professions refers to undergraduate preparation for study in allopathic medicine, chiropractic medicine, dental medicine, osteopathic medicine, optometry, podiatric medicine, and veterinary medicine. Students interested in these areas may choose any undergraduate major, but a solid foundation in biology and chemistry, and a fundamental knowledge of mathematics and physics are necessary.

Admission to professional schools is highly competitive and the Preprofessional Health Committee, composed of faculty from within and outside the natural sciences, works closely with individual students to determine where abilities and interests should be directed. During the freshmen and sophomore years the Committee aids students in course selection, guides them towards extracurricular experiences necessary to be competitive, and provides opportunities for students to learn about admissions, schools and careers. The application process begins in the second semester of the junior year when students ask the Committee to prepare letters of recommendation. The Committee subsequently reviews each applicant. Many factors are weighed, some of which are academic performance, commitment to service, knowledge of the health professions, interpersonal skills, and leadership. Additionally, professional school admission exams are taken near the end of the junior year. Students then complete and submit their professional school applications during the summer between the junior and senior years.

The following courses are required by most health profession schools and the schedule is typical for pre-health students.

First year	Credits
BL 150-153 General Biology	8
CH 101-104 General Chemistry	8

Sophomore year	Credits
MA 109 or 111 Calculus	4
CH 221-224 Organic Chemistry	8

Junior year	Credits
PH 111-114 General Physics	8

Additionally, it is strongly recommended that Cell Biology (BL 208, 209) be completed by the end of the junior year. If scheduling permits, Mammalian Physiology (BL 224) should be completed also. Students interested in optometry should note that one semester each of statistics and microbiology are requisites for admission to some optometry schools.

## Early Acceptance Osteopathic Program

Student interested in attending the Lake Erie College of Osteopathic Medicine (LECOM) have the option of applying for early acceptance. Specifically, they spend four years at Saint Vincent College where they complete the requirements for a B.A. or B.S. degree in a major of their choice. They also must complete specified science courses (see below) and may take no fewer than 15 credits in any given semester. Application to LECOM and notification of provisional acceptance are made before the senior year. At the end of successful study at LECOM, students receive the Doctor of Osteopathic Medicine degree

Independent of major, the following courses are required:

First-Year	Credits
BL 150-153 General Biology with Lab	8
CH 101-104 General Chemistry with Lab	8
MA 108 Calculus I	4

## Sophomore Year

BL 208, 209	Cell Biology with Lab	4
BL 224, 225	Mammalian Physiology with Lab	4
CH 221-224	Organic Chemistry with Lab	8

## Junior Year

PH 111-114	General Physics with Lab	8
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## Accelerated Osteopathic Medicine

Students interested in attending the Lake Erie College of Osteopathic Medicine have the option of completing their undergraduate and medical degrees in seven years instead of eight years. The required course of study while at Saint Vincent College follows. The curriculum is subject to revision. Students should consult with the Chairperson of the Preprofessional Health Committee for additional information.

### First Semester (16 credits)

BL 150, 151	General Biology I with Laboratory
CH 101, 103	General Chemistry I with Laboratory
MA 111	Calculus I
TH 119	First Theology
All students must take one 4 credit course designated as a First-Year Seminar.	

### Second Semester (18 credits)

BL 152, 153	General Biology II with Laboratory
CH 102, 104	General Chemistry II with Laboratory
MA 112	Calculus II
EL 102	Language & Rhetoric
	Social Science

### Third Semester (16 credits)

BL 208, 209	Cell Biology with Laboratory
CH 221, 223	Organic Chemistry I with Laboratory
MA 113	Calculus III
PH 111, 113	General Physics I with Laboratory

### Fourth Semester (17 credits)

BL 224	Mammalian Physiology - no Laboratory
CH 222, 224	Organic Chemistry II with Laboratory
PH 112, 114	General Physics II with Laboratory
PL 101	1st Philosophy
	History

### Fifth Semester (17 credits)

CH 231, 233	Physical Chemistry I with Laboratory
CH 251, 253	Proteins and Metabolism with Laboratory
	Theology
	Foreign Language
	Fine Arts

### Sixth Semester (18 credits)

CH 252, 254	Nucleic Acids and Membranes with Laboratory
CH 300	Research Seminar I
CH 304	Biological Chemistry Seminar
	History
	Foreign Language
	Social Science
	English

Total Credit Hours at Saint Vincent College = 102

The culminating experience at Saint Vincent College is CH 304. At the end of the first year of successful study at the Lake Erie College of Osteopathic Medicine, the student receives the Bachelor of Science degree with a major in Biological Chemistry from Saint Vincent College. At the end of successful study at Lake Erie College of Osteopathic Medicine, the student receives the Doctor of Osteopathic Medicine degree.

## Accelerated Podiatric Medicine

Students interested in attending the New York, Ohio or Pennsylvania Colleges of Podiatric Medicine have the option of completing their undergraduate and medical degrees in seven years instead of eight years. The required course of study while at Saint Vincent College follows. Students should consult the Chairperson of the Preprofessional Health Committee for additional information.

History	6 credits
English	6 credits
Philosophy	6 credits
Theology	6 credits
Social Sciences	6 credits
Intermediate Language	6 credits
General Chemistry	8 credits
Organic Chemistry	8 credits
Mathematics	8 credits
Physics	8 credits
General Biology	8 credits
Cell Biology	4 credits

Additionally, 12 credits must be selected from:

BL 214, 215	Molecular Genetics and Laboratory
BL 220, 221	Comparative Vertebrate Anatomy and Laboratory
BL 224, 225	Mammalian Physiology and Laboratory
BL 242, 243	Histology and Laboratory

All students must take one course designated as a First-Year Seminar.

Total credit hours at Saint Vincent College: 95 hours.

At the end of the second year of successful study at the College of Podiatric Medicine, the student receives the Bachelor of Arts degree with a major in Biology from Saint Vincent College. At the end of the fourth year of successful study at the College of Podiatric Medicine, the student receives the Doctor of Podiatric Medicine degree.

## Cooperative Programs in the Health Professions With Duquesne University

*Daryle H. Fish, Coordinator of the Pharmacy Program*

*Bettie Davis, Coordinator of the Physician Assistant, Physical Therapy and Occupation Therapy Programs*

Through a cooperative agreement between Saint Vincent College and Duquesne University, students have the opportunity to complete two to three years of study at Saint Vincent College, and then transfer to Duquesne University to complete a degree in the following fields: Physician Assistant, Physical Therapy, Occupational Therapy, and Pharmacy. These unique programs allow students to begin their college education in the friendly educational community of Saint Vincent College which is known for its small class sizes and individualized attention. It is here that a student will gain a strong background in the sciences coupled with a liberal arts foundation that features the strong Catholic, Benedictine values of our institution. Many of our students hone their athletic and leadership skills by participating in collegiate athletics, intramural sports, student government, clubs, and services activities. At Duquesne University, a student will complete his/her formal education in the urban setting of Pittsburgh that is known for its world-class health care. Upon completing one of these courses of study, students are prepared to enter the dynamic healthcare industry with an education that is firmly grounded in Catholic ideals. These programs of study are both rigorous and rewarding, allowing students to enter the health professions with a world-class education.

Students who wish to transfer to Duquesne University must maintain cumulative grade point average above a 3.0 both overall and in their science courses. Students in the PT and PA programs

must have a 3.5 GPA. In addition, students may have no more than one grade below a B- in their science courses. Duquesne University currently requires that all students transferring into their PA and PT programs have a combined math and verbal SAT score of at least 1100. Students submit an application, personal statement, critical review essay, CV, high school transcript, and three letters of reference to the Coordinator of the Duquesne Cooperative Programs the fall semester before transferring to Duquesne. Some programs such as Physical Therapy, require documentation of a minimum of 100 hours of volunteer, paid, or shadowing experience in a physical therapy setting. The 100 hours of shadowing experience must take place in at least two different settings, with no more than 50 hours of service counting at any setting. The Pre-Professional Health Committee recommends candidates to Duquesne based on academic performance, moral character, and the materials presented to the program coordinator.

NOTE: Duquesne University reserves the right to make modifications to admission requirements while this **Bulletin** is still in publication. For the current admission requirements please contact your advisor. Dr. Fish and Dr. Davis will inform current students of any changes, and work with them to modify their course of study.

In order to receive a recommendation from the committee, students should clearly demonstrate that they are able to be enrolled fulltime in coursework that includes multiple science and math courses, and maintain a grade point average above a 3.0. Students should enroll in a minimum of 14 credit hours each semester. While credits from other institutions may be transferred to Saint Vincent College, once a student is matriculated, taking additional courses off campus is discouraged. In most instances, a total of two (2) non-science courses may be taken off campus after matriculation. No science courses may be taken off campus, except for science courses that are transferred into Saint Vincent College at matriculation. Students who transfer in multiple courses at the time of matriculation may take additional courses off campus. Since it is important to demonstrate the ability to take multiple math and science courses while maintaining an appropriate GPA, taking science courses at Saint Vincent during summer school is discouraged.

The program coordinator and the Pre-Professional Health Committee periodically review the progress of the students enrolled in the programs and students will receive written feedback from the program coordinator. If a student experiences academic difficulty the committee may make a recommendation to alter the plan of study. If a student's GPA drops below 2.75, they may be dismissed from the program.

A number of students that initially enroll in these cooperative programs elect to stay at Saint Vincent and complete a Bachelor's Degree in a course of study such as Biology, Biochemistry, or Liberal Arts. After completion of their degree from Saint Vincent, the students are eligible to transfer to any of the regional universities and complete a course of study in a health-related field which includes Pharmacy, Physician Assistant, Physical Therapy, and Occupational Therapy.

### Physician Assistant

The Physician Assistant cooperative program between Saint Vincent College and Duquesne University School of Health Sciences is a six-year bachelor's/master's degree program with two options.

**Option 1:** Upon successful completion of the fourth year, students who have not already earned a Bachelor's degree will be awarded a Bachelor of Liberal Arts in Liberal Arts from Saint Vincent College. Upon successful completion of the sixth year, students will be awarded a Master of Physician Assistant degree from Duquesne University.

**Option 2:** Upon successful completion of the fourth year, students who have not already earned a Bachelor's degree will be awarded a Bachelor of Science in Health Sciences from Duquesne University.

Upon successful completion of the program at Duquesne, students will be awarded a Master of Physician Assistant degree. Graduates are eligible to sit for the Physician Assistant National Certifying Examination. Duquesne University currently requires that all students transferring into their PA and PT programs have a combined math and verbal SAT score of at least 1100. The required course of study while at Saint Vincent College follows:

### Physician Assistant

#### Option 1 Typical First-Year Schedule

##### Fall Semester

BL 150	General Biology I	3
BL 151	General Biology I Laboratory	1
CH 101	General Chemistry I	3
CH 103	General Chemistry I Laboratory	1
TH 119	First Theology	3
FL 203	Intermediate Language	3
	First-Year Seminar	1
Total Fall		18

##### Spring Semester

BL 152	General Biology II	3
BL 153	General Biology II Lab	1
CH 102	General Chemistry II	3
CH 104	General Chemistry II Lab	1
EL 102	Language & Rhetoric	3
FL 204	Intermediate Language	3
HI—	History (100 level)	3
Total Spring		17

#### Option 1 Typical Sophomore Year Schedule

##### Fall Semester

BL 208	Cell Biology	
BL 209	Cell Biology Laboratory	1
CH 221	Organic Chemistry I	3
CH 223	Organic Chemistry I Laboratory	1
PY 100	Introduction to Psychology	3
TH—	Theology Elective	3
PL 101	First Philosophy	3
Total Fall		17

##### Spring Semester

BL 212	Microbiology	3
BL 213	Microbiology Laboratory	1
MA 109	Calculus I	4
PY—	Psychology Concentration	3
EL 202	Intermediate Writing	3
HI—	History (200 level)	3
Total Spring		17

#### Option 1 Typical Junior Year Schedule

##### Fall Semester

PL—	Philosophy	3
LA 200	Methods & Techniques	3
PY 203	Statistics	3
PY—	Psychology Concentration	3
TH 280	Catholic Bioethics	3
PH 111	General Physics I	3
PH 113	General Physics I Laboratory	1
Total Fall		19

##### Spring Semester

AN 222	Cultural Anthropology	3
LA 250	Junior Seminar	3
PY—	Psychology Concentration	3
FA—	Fine Arts	3
EL—	Literature Course	3
BL 224	Mammalian Physiology	3
Total Spring		18

##### Summer Semester

LA 350	Independent Study	3
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#### Senior Year (First Year at Duquesne)

27 additional credits to satisfy requirements for the BA in Liberal Arts

Four credits at Duquesne to satisfy requirements for Biology minor

Three credits at Duquesne to satisfy requirements for Psychology Concentration.

### Physician Assistant

#### Option 2 Typical First-Year Schedule

##### Fall Semester

BL 150	General Biology I	3
BL 151	General Biology I Laboratory	1
CH 101	General Chemistry I	3
CH 103	General Chemistry I Laboratory	1
TH 119	First Theology	3
SO 101	Introduction to Sociology	3
	First-Year Seminar	1
Total		15

##### Spring Semester

BL 152	General Biology II	3
BL 153	General Biology II Lab	1
CH 102	General Chemistry II	3
CH 104	General Chemistry II Lab	1
EL 102	Language & Rhetoric	3
EL—	Literature Elective	3
MA 104 or 109	Calculus I preferred	3 or 4
Total		17 or 18

#### Typical Sophomore Year Schedule

##### Fall Semester

PL 101	1st Philosophy	3
PH 111	General Physics I	3
PH 113	General Physics I Laboratory	1
BA 350 or		
PY 203	Statistics I	3
PY 100	Introduction To Psychology	3
	Global Diversity <sup>1</sup>	3
CH 221	Organic Chemistry I	3
Total		19

##### Spring Semester

BL 212	Microbiology	3
BL 213	Microbiology Laboratory	1
	Ethics <sup>2</sup>	3
	Faith & Reasoning <sup>3</sup>	3
	Fine Arts Elective	3
CS 101	Survey of Computers	3
Total		16

All students transferring to Duquesne University must complete courses in the following core areas. Below is a list of core areas and the courses that fulfill the requirement:

<sup>1</sup> Global Diversity includes one of the following: TH 380 World Religions, HI 108 Traditional East Asian Societies, HI 109 Modern East Asian Societies, HI 233 History of Latin America, HI 270 The Rise of Chinese Civilization, HI 280 Islamic Civilization I 3, HI 123 Global History I, or HI 102 Western Civilization I

<sup>2</sup> Ethics includes either PL 218 Bioethics, or TH 280 Catholic

Bioethics

<sup>3</sup> Communication: CA 120 or CA 140

Social Justice: SO 101 Introduction to Sociology

Philosophy: PL 101 1st Philosophy

Theology: TH 119 First Theology

Creative Arts: Fine Arts Elective

Information Literacy: CS 101 Survey of Computers and Computing

The remaining three years are to be completed at Duquesne University.

## Physical Therapy

The Physical Therapy cooperative program between Saint Vincent College and Duquesne University School of Health Sciences is a six-year doctoral program. Upon successful completion of the fourth year, students who have not already earned a Bachelor's degree will be awarded a Bachelor of Science in Biology or Bachelor of Arts in Liberal Arts from Saint Vincent College. Upon successful completion of the sixth year, students will be awarded a Doctor of Physical Therapy degree from Duquesne University. Graduates will be eligible to sit for state licensure examinations. Duquesne University currently requires that all students transferring into their PA and PT programs have a combined math and verbal SAT score of at least 1100.

The required course of study while at Saint Vincent College follows:

## Biology Major for Physical Therapy

### Typical First-Year Schedule

#### Fall Semester

BL 150	General Biology I	3
BL 151	General Biology I Laboratory	1
CH 101	General Chemistry I	3
CH 103	General Chemistry I Laboratory	1
TH 119	First Theology	3
	Intermediate Foreign Language	3
HI—	History Elective (100 level)	3
	First-Year Seminar	1
	Total Fall	18

All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

#### Spring Semester

BL 152	General Biology II	3
BL 153	General Biology II Laboratory	1
CH 102	General Chemistry II	3
CH 104	General Chemistry II Laboratory	1
EL 102	Language and Rhetoric	3
	Intermediate Foreign Language	3
HI—	History Elective (200 level)	3
	Total Spring	17

### Typical Sophomore Year Schedule

#### Fall Semester

BL 208	Cell Biology	
BL 209	Cell Biology Laboratory	1
CH 221	Organic Chemistry I	3
CH 223	Organic Chemistry I Laboratory	1
PL 101	First Philosophy	3
TH 280	Catholic Bioethics	3
MA 109	Calculus I	4
	Total Fall	18

### Spring Semester

BL 212	Microbiology	3
BL 213	Microbiology Laboratory	1
CH 222	Organic Chemistry II	3
CH 223	Organic Chemistry II Laboratory	1
PY 100	Introduction to Psychology	3
MA 110	Calculus II	4
PL—	Philosophy Elective	3
	Total Spring	18

### Typical Junior Year Schedule

#### Fall Semester

BL 220	Comparative Anatomy	3
BL 221	Comparative Anatomy Laboratory	1
or		
BL 232	Ecology	3
BL 233	Ecology Laboratory	1
PH 111	General Physics I	3
PH 113	General Physics I Laboratory	1
PY 203	Statistics I	3
EL—	Literature Elective	3
TH—	Theology Elective	3
	Total Fall	17

#### Spring Semester

BL 234	Evolution	3
BL 235	Evolution Laboratory	1
or		
BL 236	Biology of Environmental Disturbances	3
BL 237	Biology of Environmental Disturbances Laboratory	1
or		
BL 224	Mammalian Physiology	3
BL 225	Mammalian Physiology Laboratory	1
PH 112	General Physics II	3
PH 114	General Physics II Laboratory	1
BL 301	Junior Research Seminar	2
EL—	English Elective (Literature)	3
	Total Spring	16

#### Summer Semester

BL 302	Research Project	2
BL 303	Research Thesis	1

The remaining three years are to be completed at Duquesne University.

## Liberal Arts Major for Physical Therapy Minor in Biology Concentration in Psychology

### Typical First-Year Schedule

#### Fall Semester

	First Year Seminar	1
BL 150	General Biology I	3
BL 151	General Biology Laboratory I	1
CH 101	General Chemistry I	3
CH 103	General Chemistry I Laboratory	1
TH 119	Exploring Religious Meaning	3
or		
EL 102	Language and Rhetoric	3
	Intermediate Foreign Language	3
	Total Fall	15

All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

### Spring Semester

BL 152	General Biology II	3
BL 153	General Biology II Laboratory	1
CH 102	General Chemistry II	3
CH 104	General Chemistry II Laboratory	1
TH 119	Exploring Religious Meaning	3
or		
EL 102	Language and Rhetoric	3
	Intermediate Foreign Language	3
HI—	History Elective (100 Level)	3
Total Spring		17

### Typical Sophomore Year Schedule

#### Fall Semester

BL 208	Cell Biology	3
BL 209	Cell Biology Laboratory	1
PY 100	Introduction to Psychology	3
PL 101	1st Philosophy	3
TH—	Theology Elective	3
MA 109	Calculus I	4
Total Fall		17

#### Spring Semester

BL—	Biology Elective	3
BL—	Biology Elective	1
MA 110	Calculus II	4
PY—	Psychology Elective	3
EL—	English Elective	3
HI—	200 Level History	3
Total Spring		17

### Typical Junior Year Schedule

#### Fall Semester

PL—	Philosophy	3
PH 111	General Physics I	3
PH 113	General Physics Lab I	1
LA 200	Methods and Techniques of Research	3
PY 203	Statistics	3
PY—	Psychology	3
TH 280	Catholic Bioethics	3
Total Fall		19

#### Spring Semester

AN 222	Cultural Anthropology	3
PH 112	General Physics II	3
PH 114	General Physics II	1
LA 250	Junior Seminar	3
PY—	Psychology Elective	3
EL—	English Elective (Literature)	3
Total Spring		16

### Summer Semester

LA 350	Independent Study	3
Total Credits at Saint Vincent		104

### Senior Year (First Year at Duquesne)

24 additional credits to satisfy requirements for the BA in Liberal Arts  
Four (4) credits at Duquesne to satisfy requirements for Biology minor  
Three (3) credits at Duquesne (435) Psychology of Illness and Disability to satisfy requirements for Psychology Concentration.

### Occupational Therapy

The Occupational Therapy cooperative program between Saint Vincent College and Duquesne University School of Health Sciences is a five-year master's degree program. Upon successful completion of the fourth year, students who have not already earned a bachelor's degree will be awarded a Bachelor of Science in Health Sciences from Duquesne University. Upon successful completion of the fifth year, students will be awarded a Master of Occupational Therapy degree from Duquesne University. Graduates will be eligible to sit for the National certification examination administered by the National Board for Certification in Occupational Therapy and apply for state licensure, if required. Sixty hours of community service is required.

### Typical First-Year Schedule

#### Fall Semester

BL 150	General Biology I	3
BL 151	General Biology I Laboratory	1
CH 101	General Chemistry I	3
CH 103	General Chemistry I Laboratory	1
TH 119	Exploring Religious Meaning	3
EL—	Literature Elective	3
PY 100	Introduction To Psychology	3
	First-Year Seminar	1
Total		18

#### Spring Semester

BL 152	General Biology II	3
BL 153	General Biology II Lab	1
PL 101	1st Philosophy	3
EL 102	Language & Rhetoric	3
SO 101	Introduction to Sociology	3
MA 104 or		
MA 109	Calculus I preferred	3 or 4
Total		16 or 17

### Typical Second-Year Schedule

#### Fall Semester

BL 220	Comparative Vertebrate Anatomy	3
BL 221	Comparative Vertebrate Anatomy Laboratory	1
PH 111	General Physics I	3
PH 113	General Physics I Laboratory	1
BA 350 or		
PY 203	Statistics I	3
CS 101	Survey of Computers	3
SO 105	Chemical Dependency	3
Total		17

#### Spring Semester

BL 224	Mammalian Physiology	3
BL 225	Mammalian Physiology Laboratory	1
	Ethics <sup>2</sup>	3
	Faith & Reasoning <sup>3</sup>	3
	Fine Arts Elective	3
	Global Diversity <sup>1</sup>	3
Total		16
Total credit hours at Saint Vincent College		67

All students transferring to Duquesne University must complete courses in the following core areas. Below is a list of core areas and the courses that fulfill the requirement.

<sup>1</sup> Global Diversity includes one of the following: TH 380 World Religions, TH 385 Buddhism, HI 108 Traditional East Asian Societies I, HI 109 Modern East Asian Societies, HI 233 History of Latin America, HI 270 The Rise of Chinese Civilization, HI 280 Islamic Civilization I 3, HI 123 Global History I, or HI 102 Western Civilization I

<sup>2</sup> Ethics includes either PL 218 Bioethics, or TH 280 Catholic



## Bioethics

<sup>3</sup> Communication includes one of the following: CA 120 Public

Presentation or CA 140 Interpersonal and Organizational Communication  
 Social Justice: SO 101 Introduction to Sociology, TH 250 Introduction  
 to Moral Theology, TH 265 God, Work, and Money  
 Philosophy: PL 101 1st Philosophy  
 Theology: TH 119 Exploring Religious Meaning  
 Creative Arts: Fine Arts Elective  
 Information Literacy: CS 101 Survey of Computers

## Pharmacy

The cooperative program between Saint Vincent College and Duquesne University School of Pharmacy is a six-year doctorate program leading to the Doctor of Pharmacy (Pharm.D.) degree. To practice pharmacy, students must pass a state licensure examination. Duquesne University requires that all students who wish to transfer into their program complete the PCAT exam, and interview as part of the application process. The required course of study while at Saint Vincent College follows:

### Typical First-Year Schedule

#### Fall Semester

BL 150	General Biology I	3
BL 151	General Biology I Laboratory	1
CH 101	General Chemistry I	3
CH 103	General Chemistry I Laboratory	1
TH 119	First Theology	3
PL 101	1st Philosophy	3
	First-Year Seminar	1
Total		15

#### Spring Semester

BL 152	General Biology II	3
BL 153	General Biology II Lab	1
CH 102	General Chemistry II	3
CH 104	General Chemistry II Lab	1
EL 102	Language & Rhetoric	3
PY 100	Introduction To Psychology	3
MA 109 or		
MA 111	Calculus I	4
Total		18

### Typical Second-Year Schedule

#### Fall Semester

CH 221	Organic Chemistry I	3
CH 223	Organic Chemistry I Laboratory	1
PH 111	General Physics I	3
PH 113	General Physics I Laboratory	1
BA 350 or		
PY 203	Statistics I	3
EC 101	Microeconomics	3
pr		
EC 102	Macroeconomics	3
	Global Diversity <sup>1</sup>	3
Total		17

#### Spring Semester

CH 221	Organic Chemistry II	3
CH 223	Organic Chemistry II Laboratory	1
	Ethics <sup>2</sup>	3
	Faith & Reasoning <sup>3</sup>	3
AR/MU—	Fine Arts	3
EL—	English Literature	3
Total		16

<sup>1</sup> Global Diversity includes one of the following: TH 380 World Religions, TH 385 Buddhism, HI 108 Traditional East Asian Societies, HI 109 Modern East Asian Societies, HI 233 History of Latin America, HI 270 The Rise of Chinese Civilization, HI 280 Islamic Civilization I 3, HI 123 Global History I, HI 102 Western Civilization I, or SO 101 Introduction to Sociology

<sup>2</sup> Ethics includes one of the following: PL 215 Ethics, PI 216 Ethical Problems, TH 275 Catholic Sexual Ethics, PL 218 Bioethics, or TH 280 Catholic Bioethics

<sup>3</sup> Faith & Reasoning includes one of the following: PL 235 Philosophy of God, PL 240 Influence of Philosophy on Theology, PL 100 Ancient and Medieval Philosophy, TH 255 Religion and Politics, TH 300 Systematics I, TH 325 Vatican II History and Theology, TH 344 Classics in Catholic Theology, TH 348 Film, Fiction and Faith, TH 366 Religious Beliefs of Abraham Lincoln

Philosophy: PL 101 1st Philosophy  
 Theology: TH 119 Exploring Religious Meaning  
 Creative Arts: Fine Arts Elective

In addition to the above requirements, all students that apply to Duquesne's Pharmacy school after the fall of 2007 will be required to submit scores for the Pharmacy College Admission Test (PCAT). An interview will also be required for Admission.

# Pre-Law Program

Saint Vincent College's Pre-Law program is designed to mentor and assist student of all majors considering a legal career; from first-year orientation through application to law school. It's a support program, not a major.

Law schools are very concerned with the quality of preparation students receive during their undergraduate experience. Regardless of the major chosen, a student planning to enter law school must develop an ability to read and comprehend complex texts with accuracy and insight and discern critical issues. The ability to analyze reasoning used by authors and courts to arrive at conclusions is crucial.

Organization and management of information and acquiring communication skills, both verbal and written, are essential. A student must analyze and communicate. It is suggested that in addition to their major, students should consider courses in the following areas; Logic, Intermediate Writing, Constitutional Law, Statistics and Survey of Accounting. Faculty advisors may have further recommendations.

An interdepartmental Pre-Law Committee consisting of faculty members and students exists to aid students in achieving their goals. The Committee has established an annual Legal Profession dinner, supported by alumni, proceeds from which are used to benefit pre-law student activities and field trips. Junior and Senior Pre-Law students are invited to attend the dinner.

The Committee supports College Career Nights where lawyers in a variety of legal areas discuss their profession with students. There is a thriving Mock Trial program, which promotes skills in trial advocacy and legal analysis. An active Pre-Law Club invites guest speakers from the ranks of judges and lawyers, providing essential information and advice on planning for a legal career and becoming aware of the demands, realities and opportunities in the legal profession.

The Committee also works in cooperation with the Career Center to advise students. A Pre-Law Resource Center is located in the Career Center. Students can get assistance with preparation for the Law School Admissions Test (LSAT) from their faculty advisors. The Career Center, in cooperation with faculty, facilitates placements of interested students in law-related internships.

Information and applications for the Law School Admissions Test (given four times a year) are available at the Career Center.

## The Saint Vincent Law Society

The Saint Vincent Law Society is composed of alumni of the College, Seminary, or Preparatory School with a law degree or enrolled in a law school, and any student of the College interested in pursuing a legal career. The purpose of the Society is to support pre-law programs at Saint Vincent College and to promote the professional development of lawyer alumni of the College. The Society will encourage and assist students and alumni of the College in pursuing careers in the legal profession. The Society will aid those who decide to apply to law school to present the strongest applications possible. The Society will promote professional development and to advance the highest principles of ethics and professionalism among members. The Society will provide a forum for networking and to cultivate a spirit of cooperation and camaraderie among its members. The Society will also offer a mentoring program for pre-law students, a fund to assist students taking LSAT preparation courses, and a program to assist alumni currently in or recently graduated from law school. If you are interested in law, please consider joining the Saint Vincent College Law Society. Contact the Deans of the Schools for membership.

## Law School 3-3 Program

*Contacts: Dr. Timothy Kelly; Dr. Jason King; Dr. Dennis McDaniel; Dr. Gabriel Pellathy; Dr. Phyllis Riddle; Dr. Bradley Watson*

The Bachelor of Arts/Juris Doctorate degree program is offered through the affiliation of Saint Vincent College and Duquesne University. Admission to the law program at the first-year level will require students to submit test results from the SAT I or ACT exam. Fifteen secondary school academic units are required, including four units of English, two or more units of college preparatory mathematics, one unit of science and three units of social science; two units of a foreign language are preferred among five elective units. Students applying for the law program must register at Saint Vincent College as an English, History, Politics, Public Policy Analysis or Sociology major. Duquesne University will guarantee a number of places in the entering class of its Law School for students who have successfully completed the Saint Vincent College preprofessional program.

## Academic Program Requirements for entry into the Duquesne Law School:

1. Successful completion of a three-year, minimum 100 credits program at Saint Vincent College with a minimum overall GPA of 3.3.
2. Minimum score of 60% on the LSAT.
3. Department approval.

### Requirements – English Major

(36 credits as listed in the Saint Vincent College **Bulletin**)

The major in English emphasizes genre and period studies, criticism and writing courses.

### Requirements – History Major

(36 credits as listed in the Saint Vincent College **Bulletin**)

Emphasis for the major in History includes studies of specific areas (Contemporary Europe, U.S. History, Global History, etc.) and research techniques.

### Requirements – Politics Major

(B.A., 33 credits as listed in the Saint Vincent College **Bulletin**).

The major in Politics includes courses in government and foreign policy.

### Requirements – Public Policy Major

(B.A., 43 credits as listed in the Saint Vincent College **Bulletin**).

Areas of study to fulfill the requirements for the major in Public Policy include economics, business and public policy.

### Requirements – Sociology Major

(36 credits as listed in the Saint Vincent College **Bulletin**)

The major in Sociology requires students to study various subjects, including social problems, anthropology, theory and statistics.

### Requirements – Theology Major

(30 credits as listed in the Saint Vincent College **Bulletin**)

The major in Theology prepares students for the academic study of religion and numerous career opportunities.

## Years One, Two & Three – at Saint Vincent College

The sum of the Core Curriculum and Departmental requirements may exceed the total needed (100) because some courses satisfy both requirements.

## Years Four, Five & Six – at Duquesne University

# Psychology

Christopher Oldenburg, Chairperson

Vernon A. Holtz, O.S.B.; Mark Rivardo; Kristine L. Slank;  
Susan Walker

Adjunct Faculty: Mary Crone; Ted Kinney; Stacie Lefford;  
Larry Montemurro; Mary Niemiec; Paul Niemiec

The Department of Psychology offers a program of study that is designed to prepare students for both advanced and applied work in the professional and scientific areas of psychology and related fields including health, business, law, education, and human services. Students receive broad training in the science and application of psychological methods and principles, as well as opportunities to gain knowledge and hands-on experience in specialized areas.

In addition to a Bachelor of Science degree in Psychology, the Department offers an Addiction Specialist Training Certificate, a double major in concert with the Sociology Department, a minor in Psychology, research and internship experience, and the Psychology Scholars Program. The Addiction Specialist Training Certificate provides training in the intrapersonal and family dynamics of chemical dependency; the process of rehabilitative treatment systems; and counseling skills and theories. These are useful skills for students who are specifically interested in working with people with substance abuse problems, as well as for students interested in a variety of counseling- and business-related careers.

Beginning as early as the first-year/sophomore year, students who meet the requirements may opt to enroll in Directed Research, which involves assisting faculty and senior Psychology majors in the conduct of their research. Students who meet the requirements are also encouraged to complete original research, or a Research Thesis, in the junior and senior year, and to present the results of their research at a professional conference. Research Thesis is recommended for students who plan to pursue advanced study, especially in the more research-oriented fields of psychology and at the doctoral level.

Students may also wish to take advantage of the Department's seminar courses. The seminar courses are one component of our Psychology Scholars Program, but the courses are available to all intellectually motivated students. The seminars provide students an opportunity to engage in small group discussion of scholarly readings on advanced topics and to enhance their skills in critical thinking, analytical reading, and written and oral expression.

The Department evaluates the academic achievement and preparation of students in a variety of ways, including the completion of at least one internship experience, a poster presentation of original research, and a capstone course in the junior or senior year that involves a critical analysis of research on a topic of the student's choice.

Finally, the Department attempts to accommodate students who seek a broad background in psychology but whose career interests are in areas such as business, law, and medicine. Students with these or other interests may be allowed to substitute some of the required courses in psychology with courses from other areas that meet their special needs. Students who wish to request these changes must receive written approval from the Department Chairperson.

## Psychology Learning Objectives

- Students will develop written communication skills that enable them to communicate effectively and in a professional manner.
- Students will develop the oral communication skills that are needed to make professional presentations that are appropriate to the audience.

- Students will develop technological skills that enable them to locate sources, conduct statistical analyses, and construct effective graphs and written documents. Students will also be able to use email, Blackboard, Excel and PowerPoint
- Students will have an understanding of the major ethical issues associated with psychological research, application, and professional behavior.
- Students will be prepared for employment and graduate study in psychology-related areas; they will be familiar with the variety of career and graduate school options.

## Requirements for the Bachelor of Science Degree in Psychology (41-43 credits)

(Also see Core Curriculum requirements.)

The required courses and internship within the major provide a breadth of knowledge about the various fields of psychology. The courses also provide a background in scientific research methodology as applied in psychology.

The required course work for the Psychology Major is as follows:

PY 100	Introduction to Psychology	3
PY 203	Statistics I	3
PY 204	Statistics II	3
One of the following three:		3
PY 212	Child Development	
PY 214	Adolescent Development	
PY 216	Psychology of Adult Development	
PY 243	Abnormal Psychology	3
PY 244	Theories of Personality	3
PY 260	Social Psychology	3
One of the following two:		3
PY 308	Cognitive Psychology	
PY 309	Learning	
PY 331	Biological Psychology	3
PY 341	Research Methods in Psychology	4
PY 382	Psychological Assessment	3
PY 390	History and Systems of Psychology	3
One of the following two:		3
PY 401	Capstone: Research Review and Analysis	
PY 405	Capstone: Research Thesis I*	
PY 550	Psychology Internship	1-3

\*PY 405 requires a minimum 3.5 grade point average in all courses taken in the Psychology Department and students who register for PY 405 should do so with the expectation that they will complete PY 406 (Capstone: Research Thesis II).

In addition to the required courses, students are encouraged to take elective courses within the Psychology Department and to choose Core Curriculum courses that will best prepare them for their future careers. The Department assumes that entering students have basic computer skills (i.e., the ability to use word processing and spreadsheet applications). If this is an area of weakness, the student is advised to take an introductory computer science course.

## Requirements for Minor in Psychology (18 credits)

All students desiring a minor in psychology must complete 18 credits within the department. The requirements are as follows:

PY 100	Introduction to Psychology	3
PY 243	Abnormal Psychology	3
PY 260	Social Psychology	3
One course from the following:		3
PY 308	Cognitive Psychology	
PY 309	Learning	
PY 331	Biological Psychology	
PY 390	History and Systems of Psychology	
Any Two courses offered by the department:		6

## Psychology-Sociology Double Major

The Psychology and Sociology departments offer a collaborative program designed to facilitate students' completion of majors in both psychology and sociology. The program consolidates some course requirements in order to facilitate students' completion of the two majors. Specific course requirements vary depending on whether psychology or sociology is the student's first or second major. See the chairperson of the Psychology or Sociology Department for specific requirements.

## Requirements for the Bachelor of Arts Degree in Psychology Education with a minor in Secondary Education (31-32 credits) (See Core Curriculum requirements.)

The Psychology Education Major with a minor in Secondary Education prepares students to pursue teacher certification in Social Science at the secondary level (grades 7-12). Teachers certified in Social Science are eligible to teach psychology, sociology, and anthropology at the secondary level only. Students interested in pursuing early childhood, elementary, or K-12 certification should not complete the Psychology Education major. The Psychology Education Major is an option only for students who intend to complete the requirements for a minor in Secondary Education. (See the Education Department for the specific requirements of each certification.)

Students who complete the Psychology Education Major should be aware that the major may not provide sufficient background in statistics and research methodology for pursuing advanced study in psychology. Students who wish to obtain teaching certification and also prepare for graduate study in psychology should consider taking Statistics II (PY 204) and Research Methods in Psychology (PY 341). Course requirements for the Psychology Education major are below. In addition to meeting the requirements of the Psychology Department and the Core Curriculum, students must complete all of the requirements for certification. See information provided under the Education Department to determine those requirements.

PY 100	Introduction to Psychology	3*
PY 115	Educational Psychology	3*
PY 201	Applied Statistics and Research Methods	3
PY 214	Adolescent Development	3
PY 260	Social Psychology	3
PY 290	Psychology and Education for Exceptional Students	3
PY 331	Biological Psychology	3
PY 381	Educational Testing	3
ED 100	Foundations of Education	3
ED 205	Strategies and Techniques of Instruction	2
One of the following three courses:		3
PY 308	Cognitive Psychology	3
PY 309	Learning	
PY 378	Seminar: Cognitive Psychology	
One of the following three courses:		3
PY 243	Abnormal Psychology	2-3
PY 244	Personality Theories	
PY 374	Seminar in Personality Theories	
One of the following two courses:		2-3
ED 400	Field Experience II: Pre-Student Teaching Practicum	2-3
PY 401	Capstone: Research Review and Analysis	

\* Introduction to Psychology, Educational Psychology, and Foundations of Education are three-credit courses that fulfill the Social Sciences core requirements.

## Addiction Specialist Training Certificate

The Addiction Specialist Training Program is designed to provide the background knowledge necessary for students to develop the skills to help people with substance abuse problems. The program covers areas such as mood-altering chemicals, counsel-

ing theories and philosophies, legal rights of clients, and the development of specific treatment skills including intake, orientation, treatment planning, case management, crisis intervention, client advising, referral, documentation, consultation, and case presentation. Employment opportunities for addiction treatment or prevention exist in addiction treatment centers, hospitals, outpatient treatment facilities, rehabilitation centers, halfway houses, and correctional facilities such as prisons and juvenile detention centers.

The certificate requires 24 credits (or 18 additional credits for Psychology majors). At least 12 credits must be earned at Saint Vincent College. The curriculum is based on the assumption that the student has had Introduction to Psychology or an equivalent course. Required Courses:

SO 105	Chemical Dependency
PY 214	Adolescent Development
PY 219	Introduction to Counseling
PY 251	Family Systems
PY 252	Rehabilitative Treatment Systems
PY 280	Interpersonal and Group Processes
Choose two courses from the following electives:	
SO 204	Deviance
PY 243	Abnormal Psychology
PY 382	Psychological Assessment

Upon completion of the program, Saint Vincent College will award an Addiction Specialist Training Certificate as a credential of achievement. The 300 clock hours of instruction in the addiction field may also be applied toward fulfilling the Pennsylvania Chemical Abuse Certification Board (PCACB) instructional requirements for state certification (see [www.pacertboard.org](http://www.pacertboard.org)). Twenty-five clock hours of approved instruction can be applied toward the 50 hour recertification requirements of the PCACB.

## The Psychology Scholars Program

The Psychology Scholars Program is designed to provide high quality students with an intensive education in the science of psychology. Through the program, students receive the educational background for admittance to and success in graduate school. The program is rooted in the liberal arts tradition and places strong emphasis on the reading and analysis of scholarly work, class discussion, and written assignments. Interested students apply for admittance to the program in the spring semester of their sophomore year. Applications and admission criteria are available in the Psychology Department Office. Completion of the Psychology Scholars Program is recognized on the student's transcript.

In addition to completing the requirements of the Psychology major, students in the Psychology Scholars Program fulfill the following requirements:\*

- Participants complete a research thesis (PY 405 and PY 406)
- Participants complete three seminar courses offered in the department. Seminar courses emphasize the reading of primary source material, class discussion, and written assignments.
- Participants attend a regional or national psychology conference in the junior or senior year
- Participants present their research at a psychology conference; they apply for an A. J. Palumbo Student Research Grant to fund their travel, if applicable
- Participants maintain a 3.67 GPA in psychology courses and a 3.50 overall GPA

\*Students not admitted to the Psychology Scholars Program are eligible to participate in any of the above activities if the student meets the requirements of the particular activity. Students who fulfill all requirements of the Psychology Scholars Program receive special recognition as a Psychology Scholar.

## Typical First-Year Schedule

### Fall Semester

PY 100	Introduction to Psychology – First Year Seminar	4
EL 102	Language and Rhetoric	3
or		
TH 119	First Theology	3
Intermediate Modern or Classical Language		3
Mathematics		3
History, Fine Arts, Philosophy, or Social Science		3

### Spring Semester

PY 260	Social Psychology	3
PY 243	Abnormal Psychology	3
TH 119	Exploring Religious Meaning	3
or		
EL 102	Language and Rhetoric	3
Intermediate Modern or Classical Language		3
History, Fine Arts, Philosophy, or Social Science		3

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## Course Descriptions

### PY 100 Introduction to Psychology

Introduction to the field of psychology—the scientific study of mind, body, and behavior. Topics are chosen by the instructor and may include research methods, biological bases of behavior, personality, learning, memory, social behavior, development, and behavior disorders. Offered both semesters. Three credits.

### PY 115 Educational Psychology

This course is designed to introduce students to areas of psychology relevant to educational settings. The primary focus of the course is on psychological theory and research and their application to applied educational settings. Topics include learning and motivation; students' social, cognitive, and emotional development; the construction and use of tests; and methods of classroom management. Offered both semesters. Three credits.

### PY 201 Applied Statistics and Research Methods

This course is designed primarily for Psychology Education majors and Elementary Instruction majors and provides students with a basic understanding of statistical concepts and methods of inquiry as they are used in the field of education. Topics include measures of central tendency and dispersion, properties of the normal curve, statistical significance, sampling, correlation, and significance tests. Students are also introduced to critical evaluation of psychological and educational research, the social and political implications of statistical data, and basic quantitative and qualitative research designs applicable to the teaching profession. Although students are required to master statistical and research concepts, primary emphasis is placed on practical applications in educational settings. Offered every spring. Three credits.

### PY 203 Statistics I

This first course in statistics introduces students to some of the basic statistical procedures that are most commonly used in the social sciences, including measures of central tendency and variability, correlation and regression analysis, probability, logic of hypothesis testing, and t tests. Students also learn to perform statistical analyses on the computer using SPSS. Prerequisite: Successful completion of MA 099 or a math placement of MA 104. Offered every fall. Three credits.

### PY 204 Statistics II

A continuation of the first course in statistics, this course introduces more advanced procedures including analysis of variance and multiple regression. Nonparametric statistical tests such as the chi-square test are also covered. As in the first course in statistics, computer application using SPSS is further developed. Prerequisite: PY 201 or PY 203 or equivalent course. Offered every spring. Three credits.

### PY 212 Child Development

Examines human physical, cognitive, moral, and social development from conception to adolescence. Specific topics include prenatal development, temperament, intelligence, attachment, and disciplinary techniques. Early childhood observation activity included. Prerequisite: PY 100 or PY 115. Offered fall semester. Three credits.

### PY 214 Adolescent Development

Examines biological, cognitive, emotional, moral, and social development during the second decade of life. Topics include puberty, changing peer and parental relationships, school transitions, sexuality, and drug use. Prerequisite: PY 100 or PY 115. Offered spring semester. Three credits.

### PY 216 Psychology of Adult Development

This course focuses on the dynamic processes of growth and development in adulthood. Such issues as self-concept, intimacy, marriage, sex roles, work, love, friendship, and the family are examined. Prerequisite: PY 100. Offered every spring. Three credits.

### PY 219 Introduction to Counseling

This course provides an introduction to the skills, methods, and procedures of counseling and psychotherapy, including effective interaction and communication between therapist and client and the development of student self-awareness and self-assessment. The course also provides an overview of the major theoretical models of individual and family therapy, including psychodynamic, cognitive-behavioral, Gestalt, and humanistic-existential models. Prerequisite: PY 100. Three credits.

### PY 220 The Search for Meaning: Psychology of Religion

This course is designed to assist students to believe developmentally and meaningfully in themselves and in their God during our Post-Modern era. An existential phenomenological approach will address contemporary issues: humans' search for meaning, 21st century interpretations of religion and spirituality, evil, humans' experience of God and the Spirit, social justice, and love and human sexuality. Three credits.

### PY 243 Abnormal Psychology

This course provides an introduction to psychological disorders. All major disorders are discussed in terms of specific symptoms, as well as the impact of the disorder on the individual's life. Etiology and treatment are also studied. Special emphasis is placed on understanding the diagnostic system used in developing a diagnosis. Prerequisite: PY 100. Offered every spring. Three credits.

### PY 244 Theories of Personality

This course examines the development of the normal personality from a variety of theoretical perspectives (e.g., psychodynamic, social-learning, humanistic-existential). Special attention is given to the current status of the major theories of personality. The research methods employed within the various theoretical frameworks are critically reviewed. Prerequisite: PY 100. Three credits.



**PY 251 Family Systems**

This course examines the major family systems theories, their assessment techniques, and associated therapies. Emphasis is placed on the features of a functional and dysfunctional family system. Separated/divorced, substance abusing, sexually abusing, and violent family systems and their dynamics are studied in detail. Prerequisite: PY 100 or PY 115. Offered fall semester. Three credits.

**PY 252 Rehabilitative Treatment Systems**

This pre-professional course introduces students to rehabilitative treatment systems currently used by chemical dependency programs. Topics include case management and treatment planning with various populations (e.g., youth, families), ethical and legal issues, the role of family and workplace in treatment, and community resources. Prerequisites: SO 105 plus either PY 219 or PY 251. Offered fall semester. Three credits.

**PY 260 Social Psychology**

An introduction to both classic and contemporary social psychological research and theories. Topics include research methods, the self as a social construction, perceiving social others, persuasion, and aggressive and altruistic behavior. Prerequisites: PY 100 or SO 101. Offered every spring. Three credits.

**PY 270 Industrial-Organizational Psychology**

An introduction to the psychological and sociological perspectives of the behavior of individuals in organizations with a particular emphasis on industrial settings. Issues of how organizations function are supplemented with issues of how to work with organizations. Topics include motivating and supervising employees, group behavior, leadership, organizational climates, organizational development and theories, selecting employees, and interactions between workers and machines. Prerequisite: PY 100. Offered spring semester. Three credits.

**PY 280 Interpersonal and Group Processes**

This experiential-learning course is designed to introduce the art and skill of interpersonal communication and the organization and dynamics of groups to students interested in business management and in human services (e.g., psychology, education, and social work). This is primarily a skill-based course that emphasizes learning and practicing skills in active listening, open communication, problem-solving, and conflict management. The weekly format of the course includes a theory session followed by an experiential-learning laboratory. Enrollment is limited due to the nature of the experiential laboratory. Offered spring semester. Three credits.

**PY 290 Psychology and Education for Exceptional Students**

This course examines the characteristics of exceptional individuals and effective educational strategies for their inclusion in the regular classroom setting. All areas of exceptionality and the gifted and talented are included. Other topics include the legal bases for education of the exceptional, techniques for identification and assessment, adaptation of curriculum and materials, the use of technology, available educational and community resources for positive intervention for students and their families, and current developments in the field. A number of observations of and interactions with exceptional students within both regular and special education settings is a requirement of the course. Prerequisite: PY 115. Offered every semester. Three credits.

**PY 300 Directed Research**

Students assist faculty and senior psychology majors with their various research projects. Depending on the status of the research at the time of enrollment, students might read the literature, assist in the development of research ideas, design empiri-

cal studies, collect, enter, and analyze data, and contribute to the preparation of manuscripts. P/F only. Prerequisites: Permission of instructor; recommended A- or higher in PY 203. Offered every semester. May be repeated. One credit.

**PY 308 Cognitive Psychology**

An analysis of human cognition, including such topics as attention, perception, pattern recognition, memory, language production and comprehension, problem solving, creativity, and artificial intelligence. Prerequisite: PY 100 or PY 115. Three credits.

**PY 309 Learning**

An overview of how and why human behavior changes in response to the environment. Although animal models of learning are discussed, emphasis is placed on how animal models help us understand the complexity of human behavior. Topics include Pavlovian and operant learning, stimulus control, biological preparedness, reinforcement contingencies, behavior modification, and token economies. Prerequisite: PY 100 and PY 201 or PY 203. Offered fall semester. Three credits.

**PY 320 Forensic Psychology**

A survey of topics in forensic psychology, a specialized subfield involving the interface between psychology and law. Topics include forensic assessment, civil competence, eyewitness testimony, criminal responsibility, psychology of criminal behavior, criminal profiling, jury issues, expert witness issues, police issues, and career paths in forensic psychology. Prerequisite: PY 100; recommended PY 243. Three credits.

**PY 331 Biological Psychology**

This course introduces students to the ways in which behaviors are based on biological processes occurring within our bodies. The major topics of the course include an introduction to the functioning of the nervous and hormonal systems, sensory processes, the effects of drugs on behavior, motivation and emotion, learning and memory, and biological bases for psychological disorders. Prerequisite: PY 100. Offered both semesters. Fee. Three credits.

**PY 341 Research Methods in Psychology**

The purpose of this course is to introduce students to the various tactics of performing research within the field of psychology. Although the emphasis is on psychological research methods, the procedures developed are applicable to all areas of scientific research—social, biological and physical. Course work includes hands-on experience conducting psychological research, analyzing data, and reporting results. Prerequisites: Either PY 203 and PY 204 or PY 201. Offered both semesters. Fee. Four credits.

**PY 350 Independent Study**

May be repeated. Variable credit.

**PY 370 Seminar: Ethical Issues in Psychology**

This upper division seminar course examines the prominent professional and ethical issues in psychology. Issues primarily surround work with patients; however, research and teaching issues are also covered. This is a seminar course in which students read and discuss articles from scholarly journals. Prerequisite: Instructor's permission and junior or senior psychology major. Offered fall semester. Three credits.

**PY 371 Seminar: Collaborative Research on a Special Topic**

Students read and discuss primary sources on a topic selected by the instructor and then collectively design a research project. The final paper for the course is a collaborative research proposal with pilot data and preliminary analyses. Completion of the entire project is expected to yield a publication-quality manuscript or a professional conference presentation. Students interested in con-

tinuing their involvement in the research beyond PY 371 may do so through PY 300 Directed Research. Prerequisites: PY 100, PY 203, and Instructor's permission. Other prerequisites may be recommended depending on the semester's topic. Three credits.

#### **PY 374 Seminar: Personality Theories**

This upper division seminar course examines the major theories of personality. Students read and discuss articles from scholarly journals, as well as selected original works from prominent personality theorists. Topics include psychoanalysis, behaviorism, humanism, and trait theories, in addition to disorders of personality. Prerequisite: Junior or senior psychology major and permission of instructor. Three credits.

#### **PY 378 Seminar: Cognitive Psychology**

In this upper division seminar course, students read and discuss articles from scholarly journals and complete laboratory demonstrations. The course examines special topics in the field of cognitive psychology such as memory errors, divided attention, and problem solving. Prerequisite: PY 100 and junior or senior status and permission of instructor. Offered spring semester. Three credits.

#### **PY 381 Educational Testing**

This course is designed for Psychology Education majors and Elementary Instruction majors and provides an overview of psychological and educational testing of preschool and school age children and youth. Topics include the history, issues, and problems of psychological and educational assessment; test design and evaluation; an overview of tests of intelligence, academic achievement, interests, and aptitude; ecological assessment of classroom behavior; and a review of ethical issues. Consideration will be given to assessing the needs of exceptional children and ways of critically reviewing such assessment for purposes of educational decision-making. Prerequisite: PY 201 or PY 203. Offered fall semester. Fee. Three credits.

#### **PY 382 Psychological Assessment**

This course provides an introduction to the field of psychological assessment. Assessment includes a variety of psychological tests and other approaches designed to gain a better understanding of the human person. Includes personality and intellectual testing, as well as standardization and construction. Prerequisite: PY 203. Offered fall semester. Fee. Three credits.

#### **PY 390 History and Systems of Psychology**

An examination of the major systems and trends in the history of psychology. Special attention is given to the various schools of philosophical thought that preceded the emergence of psychology as a science. Although the contributions of particular psychologists are considered, the primary emphasis is on the major systems or schools of thought that have influenced the development of psychology as a science. Prerequisite: Twelve previous credits in psychology. Offered fall semester. Three credits.

#### **PY 401 Capstone: Research Review and Analysis**

In this capstone course required for Psychology majors, students write a literature review and an analysis of a topic in the field of psychology. Students identify and examine primary sources and use these sources to develop a critical analysis of the topic area. (Psychology majors completing PY 405 and 406 are exempt.) Prerequisite: PY 341. Offered both semesters. Three credits.

#### **PY 405 Capstone: Research Thesis I**

Junior psychology majors design an empirical study and submit an APA-style research proposal and IRB application. Students conduct an extensive review of the literature, synthesize existing theory and research to build a rationale for their study, develop specific hypotheses, devise appropriate methodology and statistics, and obtain or construct supporting materials. Prerequisites: PY 341, 3.5 Psychology GPA, and authorization by the Department Chair. Offered spring semester. Three credits.

#### **PY 406 Capstone: Research Thesis II**

In this follow-up to Research Thesis I, students conduct the empirical study that they designed in PY 405. Students recruit participants; collect, analyze, and interpret data; compose the results, discussion, tables, and figures; and revise all earlier portions of the paper to produce an empirically based APA-style research thesis. Prerequisite: PY 405. Offered fall semester. Three credits.

#### **PY 550 Psychology Internship**

Students engage in professional work experience in the community that complements and strengthens academic learning. The number of credits earned and the academic requirements are variable, depending on the duration of the experience. Students may or may not receive monetary compensation depending on the organization. Students must receive approval from the faculty internship advisor and complete all paper work with the Career Center before registering for or beginning the internship. May be repeated. Offered both semesters. Variable credit.

# Public Policy

*Faculty:* Gary Quinlivan, Dean, McKenna School and Program Chairperson

*Charles Fazzi; Robert DePasquale; Jerome C. Foss; Thomas Holowaty; Andrew R. Herr; William J. Hisker; Peter M. Hutchinson; Jason R. Jividen; Myron Kirsch, O.S.B.; Gabriel S. Pellathy; Bradley C. S. Watson; Carla Zema*

*Adjunct Faculty:* Lee Demosky; Cecilia Dickson; Mary Beth McConahey; Joseph Polka; Richard Saccone

The Public Policy program of the McKenna School is designed to develop an understanding of the economic and political institutions, principles, and processes involved in public policy decision-making. Students are led to examine issues critically while developing a substantive knowledge of market economics and democratic-constitutional government as the context for American public policy. These studies contribute to the development of a well-rounded liberal arts education while helping students pursue their professional goals. The Public Policy program offers a general public policy major. The major seeks to provide the theoretical and analytical background needed to effectively participate in public policy-related endeavors.

Governmental actions at the various levels have a broad impact on society and affect businesses, the professions, and many aspects of individuals' lives. Economic analysis and knowledge of political organization and politics comprise much of the intellectual framework for public policy decision-making. The curriculum combines courses in economics and political science to help foster the development of such skills and knowledge. All Public Policy majors are encouraged to participate in the programs of the McKenna School's Center for Political and Economic Thought, which sponsors numerous lectures and conferences by prominent outside speakers on campus.

The program's capstone experience is a senior thesis on a public policy topic fulfilled in PS 480. It is anticipated that many public policy majors may be interested in seeking immediate employment in public policy-related positions in the non-profit sector or business, or in government service or politics. To enhance career opportunities, an internship or other relevant work experience is recommended, which may be pursued through the College's Career Services office.

The curriculum is also good preparation for students interested in law school; such students should also consult the College's Pre-Law program in this **Bulletin**. Students may consider applying to graduate school in public policy, public administration, or public affairs. Public Policy majors receive the Bachelor of Science degree.

## Public Policy: Major Requirements (43 credits)

BA 100	Financial Accounting I	3
BA 150	Managerial Accounting	3
BA 350	Statistics I	3
BA 351	Statistics II	3
EC 101	Principles of Economics: Micro	3
EC 102	Principles of Economics: Macro	3
EC 201	Microeconomic Theory	3
EC 202	Macroeconomic Theory	3
MA 109	Calculus I	4
PS 100	Principles of American Politics	3
PS 242	International Politics	3
PS 336	American Political Thought	3
PS 345	Domestic Public Policy	3
PS 480	Senior Thesis (on a public policy topic)	3

This major satisfies all of the social sciences requirements of the college core curriculum. After completing this major and the college core, you will have 34 credits for electives.

## Typical First-Year Schedule

		Fall	Spring
EC 101, 102	Principles of Microeconomics and Macroeconomics	3	3
PS 100	Principles of American Politics	3	
BA 100	Financial Accounting I	3	
BA 150	Managerial Accounting		3
College Core—Foreign Language		3	3
TH 119	First Theology	3	or 3
EL 102	Language and Rhetoric	3	or 3
College Core—History or Mathematics		3	or 3

All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

## Minor in Public Administration

For those **majoring in Politics**, in addition to the major requirements, the following courses will be required:

BA 102	Survey of Accounting	3
BA 104	Introduction to Management	3
BA 150	Managerial Accounting	3
BA 170	Organizational Behavior	3
BA 350	Statistics I	3
EC 101	Principles of Microeconomics	3

For those **not majoring in Politics**, 18 credits are required for the minor in Public Administration. **Business majors may not minor in Public Administration.** The following courses will be required:

BA 100	Financial Accounting I	3
or		
BA 102	Survey of Accounting	3
BA 350	Business Statistics I	3
PS 100	Principles of American Politics	3
PS 345	Domestic Public Policy	3

The student will also be required to choose two courses from the following list:

BA 104	Introduction to Management	3
BA 150	Managerial Accounting	3
BA 170	Organizational Behavior	3
EC 101	Principles of Economics, Micro	3

The above program is an interdisciplinary program under the direction of the Politics Department. Substitutions for some of the courses above are allowed with the consent of the Dean of the McKenna School.

## Double Majors and Minors

Public Policy majors may not receive a double major or minor in Economics or Politics; nor may they receive the Public Administration minor.

## Course Listings

For a description of the courses and semesters when they are offered, see the Business Department, Economics Department, and Political Science Department course listings.

# Sociology/Anthropology

Phyllis Riddle, Chairperson

Bruce A. Antkowiak; Elaine Bennett; Thaddeus Coreno

Adjunct Faculty: Angela Belli; Larry Montemurro

The Department offers a Bachelor of Arts degree in Sociology, Anthropology, and Criminology, Law and Society, as well as a minor in three courses of study: Sociology, Anthropology, and Criminology, Law and Society. The philosophical foundation of the Department embraces the institution's emphasis on the need for a holistic liberal arts education. The unique perspective given by the department is particularly appropriate and helpful to any major or career path that would benefit from an understanding of human behavior. The Department seeks to develop a student's scientific understanding of the cultural and social forces that shape human behavior. By making use of the perspectives found in the fields of Anthropology and Sociology, students come to understand the science of human behavior within a cross-cultural and historical context.

An undergraduate degree in sociology provides a strong liberal arts foundation for entry-level positions in social services, law or criminal justice, education, community development, marketing or other business-related fields, and government jobs. Those who enter human services might work with youths at risk, the elderly, or people experiencing problems related to poverty, substance abuse, or the justice system. Those who enter the business world might work in sales, marketing, customer relations, or human resources. Others may choose a teaching career. Sociology also offers valuable preparation for careers in journalism, politics, public relations, business, or public administration — fields that involve investigative skills and working with diverse groups. In addition, an undergraduate degree in sociology is excellent preparation for future graduate work in sociology in order to become a professor, researcher, or applied sociologist.

With a B.A. in anthropology, students are prepared for graduate school work in any of the four fields of anthropology, leading to careers in fieldwork, publication, cultural resource management, archival administration, teaching or applied anthropology. The degree also provides valuable preparation for professional schools in fields such as medicine, law, dentistry or veterinary sciences or public health. A degree in anthropology can also lead directly to careers in secondary school teaching, social services, business, government, culture and human resource management, and international development.

The major in Criminology, Law, and Society will prepare students for a wide variety of careers and professional programs and will inform students about the influence of social forces on the legal system and how the law affects society. The major is suitable for students who wish to pursue advanced study in areas such as sociology, law, social welfare, and other areas of study which would benefit from an understanding of social forces; and those who wish to gain a sociological understanding of law and society before seeking careers in criminal justice, social work, politics, public policy, public administration, and other service occupations.

All Sociology and Anthropology majors are encouraged to undertake internships in areas that will allow them to explore career options and help determine what aspects of sociology they find most interesting. Sociology and Anthropology majors are also encouraged to select minors or concentrations that will support their career goals.

Students with a major in Sociology are eligible to participate in a cooperative program between Saint Vincent College and Duquesne Law School that allows students to earn their bachelor's degree and Juris Doctor degree in six years. In this program, qualified students who complete their first three years of study at Saint Vincent, fulfilling the Core Curriculum requirements and the

requirements for the major, may transfer into the Law Program and complete the requirements for the Juris Doctor in three years. For details, see the explanation of this program in the Pre-Law section of the **Bulletin**.

## Sociology Learning Objectives

- Understand the discipline of sociology and how it shapes our understanding of social reality by demonstrating the relevance of key concepts and applying the sociological imagination.
- Understand the role of theory in sociology and how to apply key concepts of sociological inquiry in social analysis.
- Understand the role of evidence and quantitative and qualitative research methods in sociology and to be aware of ethical issues in research.
- Think critically by distinguishing between arguments based on empirical evidence and arguments based simply on opinion; to identify underlining assumptions in theoretical orientations or methodological approaches; and to examine one's own cultural practices, beliefs and values.
- Write clearly (or make a presentation) in order to communicate sociological content by writing an account of a social event, topic, issue or problem in a clear and concise sociological analysis or writing a clear and concise report of the findings from empirical sociological analysis.

## Anthropology Learning Objectives

- Develop an understanding of the connection between the individual and social structure by making the connection between Western cultural constructions and universal cultural patterns and making the connection between cultural phenomena and specifically human modes of physicality, ecology and grammatical structures of the mind.
- Demonstrate the ability to understand and/or apply theory in anthropology by demonstrating a critical understanding of concepts and using them correctly; evaluating texts and understanding the major principles, controversies, and critiques; demonstrating the knowledge of the diverse ways of being human; appreciating the interplay of relative cultural constructions and universal themes of pan-human nature.
- Develop analytical skills relevant to 21st century anthropology by making connections between the past and the present, the local and the global, and by demonstrating an understanding of the basic analytic techniques of physical anthropology, cultural anthropology, linguistics, and/or archaeology.
- Demonstrate the ability to conduct research (original or secondary) in anthropology and be aware of ethical issues in research.
- Demonstrate the ability to clearly communicate verbally and in writing by constructing a logical argument from primary literature, and knowing how to properly reference and cite academic sources.

## Criminology, Law, and Society Learning Objectives

- Demonstrate an understanding of the criminal justice system and its components.
- Demonstrate an understanding of criminological theories and their application to contemporary public policy.
- Demonstrate an ability to integrate and apply analytical skills and substantive knowledge to specific problems in criminology.
- Demonstrate an understanding of the role of diversity and human experience in the application and study of criminology.
- Demonstrate an ability to use skills in critical thinking, synthesis and analysis of informational sources about criminal law, policing, corrections, research, and social justice.
- Demonstrate knowledge of the role of ethics, morals, and values in the field of criminology.
- Demonstrate an understanding of basic research methodology.

**Requirements for a Bachelor of Arts Degree in Sociology**  
(See Core Curriculum requirements.)

**B.A. Sociology Requirements: (36 credits)**

SO 101	Introduction to Sociology	3
AN 222	Cultural Anthropology	3
SO 235	Inequality and Social Problems	3
PY 203	Statistics I	3
SO 307	Sociological Theory	3
SO 356	Social Research Methods	3
SO 405	Senior Seminar I	3
SO 450	Senior Seminar II	3
	Sociology Electives	12

**Requirements for a Bachelor of Arts Degree in Anthropology**

**B.A. Anthropology Requirements: (39 credits)**

AN 221	Biological Anthropology	3
AN 222	Cultural Anthropology	3
AN 230	Archaeology	3
AN 328	Linguistic Anthropology	3
PY 203	Statistics I	3
AN 360	Ethnographic Field Methods	3
AN 450	Senior Seminar in Anthropology	3
SO 235	Inequality and Social Problems	3
One of the following:		
SO 101	Introduction to Sociology	3
SO 106	Sociology and Global Issues	3
SO 307	Sociological Theory	3
	Any four additional Anthropology courses	12

**Requirements for a Bachelor of Arts Degree in Criminology, Law, and Society**

**B.A. Criminology, Law, and Society Requirements: (39 credits)**

CLS 101	Introduction to Criminology	3
PY 203	Statistics I	3
CLS 215	Juvenile Justice	3
PS 227	Criminal Law and Process	3
CLS 245	Corrections, Probation, and Parole	3
CLS 265	Ethical Decisions and Dilemmas in Criminal Justice	3
SO 356	Social Research Methods	3
CLS 410	Criminological Theories	3
CLS 490	Criminology, Law, and Society Capstone Project	3
Four of the following (12 Credits)		
SO 200	Race and Ethnicity	3
SO 204	Deviance	3
SO 235	Inequality and Social Problems	3
PS 341	Global Terrorism	3
PY 320	Forensic Psychology	3
CLS 320	White Collar Crime	3
CLS 330	Investigations and Forensics	3
CLS 340	Principles of Homeland Security	3
CLS 345	Principles of Private and Corporate Security	3
CLS 405	Fraud Investigation Techniques	3
CLS 550	Internship	3

**Requirements for a Minor in Sociology: (18 credits)**

**Required Courses:**

SO 101	Introduction to Sociology	3
SO 235	Inequality and Social Problems	3
	Any four other Sociology courses (12 credits)	12

**Requirements for a Minor in Anthropology: (18 credits)**

**Choose one of the following concentrations:**

*Concentration in General Anthropology*

The general concentration provides students with a basic foundation in the discipline of anthropology, allowing students to incorporate the principles of anthropology's holistic perspective into their approach to their major discipline.

AN 101	Introduction to Anthropology	3
AN 222	Cultural Anthropology	3
Elective Courses:		
	Any four additional Anthropology courses	12

*Concentration in Applied Anthropology*

The concentration in applied anthropology is designed to prepare students to integrate anthropological thinking into their work in other disciplines. Students will become familiar with the broad range of applications of anthropology and will learn to approach problems from a holistic, interdisciplinary perspective.

AN 101	Introduction to Anthropology	3
AN 222	Cultural Anthropology	3
AN 315	Applied Anthropology	3
AN 360	Ethnographic Field Methods	3
Any two courses from the following: AN 221, AN 230, AN 238, AN 280, AN 332, SO 106, SO 161, or SO 235. Only one sociology course may count toward the minor.		
AN 101	Introduction to Anthropology	3
AN 221	Biological Anthropology	3
AN 222	Cultural Anthropology	3
	Any three additional Anthropology courses	9

**Requirements for a Minor in Criminology, Law, and Society: (18 credits)**

**Required Courses:**

SO 204	Deviance	3
CLS 101	Introduction to Criminology	3
CLS 215	Juvenile Justice	3
CLS 265	Ethical Decisions and Dilemmas in Criminal Justice	3
One of the following: CLS 320, CLS 330, CLS 340, CLS 345, or CLS 405		
PS 227	Criminal Law and Process	3
Internships with various social service/criminal justice agencies are available for qualified students.		

**Teacher Preparation**

Sociology or Anthropology majors interested in obtaining a teaching certificate should consult the requirements of the Education Department of Saint Vincent College in the ***Bulletin***.

**Typical First-Year Schedule**

***Sociology\****

SO 101	Introduction to Sociology	3
	Sociology Elective	3
AN 222	Cultural Anthropology	3
EL 102	Language and Rhetoric	3
TH 119	First Theology	3
PY 100	Introduction to Psychology	3
	Modern Languages (2)	6
	Math Core	3
	History Core	3

\*Actual schedule will depend on student's prior preparation and course availability. All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

## Typical First-Year Schedule

### *Anthropology\**

AN 121	Anthropology I	3
SO 101	Introduction to Sociology	3
AN 222	Cultural Anthropology	3
EL 102	Language and Rhetoric	3
TH 119	First Theology	3
PY 100	Introduction to Psychology	3
	Modern Languages (2)	6
	Math Core	3
	History Core	3

\*Actual schedule will depend on student's prior preparation and course availability. All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

## Typical First-Year Schedule

### *Criminology, Law, and Society\**

CLS 101	Introduction to Criminology	3
SO 101	Introduction to Sociology	3
CLS	Elective	3
EL 102	Language and Rhetoric	3
TH 119	First Theology	3
PY 100	Introduction to Psychology	3
	Modern Languages (2)	6
	Math Core	3
	History Core	3

\*Actual schedule will depend on student's prior preparation and course availability. All students will take one course designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.

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## Course Descriptions

### Anthropology

#### **AN 101 Introduction to Anthropology**

This course presents an introduction to anthropology as a holistic discipline that studies the human condition across space and time, employing comparative and evolutionary perspectives. Students will develop a fundamental grasp of the principles, methods and theories that define each of the four fields of anthropology as well as an appreciation of how the discipline offers tools for a holistic study of the human condition. Typically offered fall semester. Three credits.

#### **AN 221 Biological Anthropology**

This course explores human biological origins, evolution and variation through the application of evolutionary theory and examination of the fossil record. Topics include primatology, paleoanthropology, ecology, forensic anthropology, evolutionary medicine, genetic variation of living populations and evolutionary origins of human behavior. Typically offered every other spring semester (even-numbered years). Three credits.

#### **AN 222 Cultural Anthropology**

This course explores and compares the range of human behaviors, belief systems and social structures by examining various dimensions of human culture and social organization, with an emphasis on their interdependence. Topics include cultural diversity, adaptive strategies, language, marriage and kinship, religious beliefs and rituals, politics, economics, art, subsistence types, social change, race and ethnicity and issues of cross-cultural contact and cultural survival. Typically offered spring semester. Three credits.

#### **AN 223 Economic Anthropology**

The course applies the anthropological perspective to human economic activity, broadly defined. It explores a variety of non-Western economic strategies and alternative economic systems employed by societies in diverse environments. Systems of exchange based upon reciprocity rather than profit are discussed. Symbolic significance of money and other forms of currency are analyzed. Symbolic uses of wealth (status, prestige, power) are examined as they interarticulate with cosmology and values of differing societies. Occasional offering. Three credits.

#### **AN 225 Anthropology and World Art**

This course applies an anthropological perspective to the examination of human artistic activity. Topics include consideration of the evolutionary origins of art; social, economic, political and symbolic functions of art; art and culture change; indigenous art; art and tourism; and, cross-cultural aesthetics. The primary emphasis is on non-Western art. Typically offered every other fall semester (even-numbered years). Three credits.

#### **AN 228 Anthropology through Film**

This course explores the human condition from an anthropological perspective and through the use of film. The class will examine and critique films that represent work from the four fields of anthropology in the context of current anthropological research, comparing documentary depictions with the accepted research. It will also examine the depiction of anthropological themes in fictional film. Topics will include popular presentation of human evolution, archaeological sites and cultural practices as compared to accepted academic understandings. Students will question how what is presented in documentary work reflects academic research and scholarship. Occasional offering. Three credits.

#### **AN 230 Archaeology**

Archaeology involves the study of past peoples and cultures, from the deepest prehistory to the recent past, through the analysis of their material remains. This course examines the theories, methods and major findings of archaeology as one of the four fields of anthropology. Typically offered every other spring semester (odd-numbered years). Three credits.

#### **AN 242 Anthropology of Religion**

A study of the origins, presuppositions and phenomena of the universal imperative of religion, as a subdivision of Cultural Anthropology. Early and modern theories are related to the ecological, social, ideological adaptations of peoples of all times and places. Occasional offering. Three credits.

#### **AN 245 Anthropological Theory**

This course examines the major schools of cultural anthropological theory, identifying their critical assumptions. Theories will be placed in context of their development through history, leading to contemporary anthropological perspectives. Occasional offering. Three credits.

#### **AN 250 Biblical Archaeology**

Biblical Archaeology is the process of correlating archeological evidence with the Biblical record in order to illuminate the Biblical text. Topics covered include the environment, material culture, social organization, chronology and events of the Syro/Palestinian/Egyptian Middle East — the context within which the Bible took its oral and written form. Some background in anthropology/archeology and Bible studies is expected and most helpful. Occasional offering. Three credits.



**AN 280 Medical Anthropology**

Medical anthropology is a subfield of anthropology that draws from the discipline's four fields of cultural anthropology, physical anthropology, archaeology and linguistics. This course presents an overview of the range of theories and approaches medical anthropologists use to understand the way people deal with, think about and experience health and disease. Topics to be covered include evolutionary approaches to health, cultural and political ecology of health, ethnomedical systems, cultural constructions of illness, biomedicine as a cultural system, and applied medical anthropology. Typically offered every other spring semester (even numbered years). Three credits.

**AN 315 Applied Anthropology**

Applied anthropology is the application of anthropological theories, perspectives and research methods to understanding and solving real-world problems. This course will examine applications of anthropology in areas including medicine and public health, environmental and ecological issues, indigenous rights and basic human rights as well as in the context of other disciplines such as business, marketing and education. Students will participate in an applied project as part of an experiential and service learning approach. Prerequisites: AN 222. Typically offered every other fall semester (odd numbered years). Three credits.

**AN 328 Linguistic Anthropology**

The course examines the origins, nature, and development of communication, symbol and language of humankind. Along with sociolinguistic theory, cognitive habits of *Homo sapiens* are explored in their tribal and modern counterparts. Prerequisites: AN 222. Typically offered every other spring semester (odd numbered years). Three credits.

**AN 332 Ethnology**

A survey and an analysis of a variety of cultural types, based upon their particular embodiments in certain actual social and ethnic settings. Ethnographies of human groups based on differing subsistence methods will be schematized. Cultural evolution will be emphasized in the context of human diversity. Prerequisites: AN 222. Occasional offering. Three credits.

**AN 350 Independent Study — Anthropology**

Independent investigation and research into a special topic for selected students. Topics are determined by both student and professor. Prerequisite: permission of faculty member and departmental chair. May be repeated. Variable credit.

**AN 360 Ethnographic Field Methods**

In this course, students will learn the fundamentals of research design in cultural anthropology and develop skills in a number of qualitative data collection methods and their analysis. Research methods covered will include observation, participant observation, informal and formal interviewing, focus groups and pile sorts. Special consideration will be given to ethical issues in anthropological research. Prerequisites: AN 222. Typically offered spring semester. Three credits.

**AN 375 Special Topics in Anthropology**

Topics vary, but the focus of this course is an in-depth examination of specific issues and/or developments in anthropology. Prerequisite: junior or senior standing. Occasional offering. Three credits.

**AN 450 Senior Seminar in Anthropology**

This course is a capstone course for Anthropology majors. It is designed to facilitate critical reflection and analysis through completion of an independent senior project as well as a self-evaluation of anthropological skills/knowledge and personal objectives. Prerequisite: permission of the faculty member. Typically offered fall semester. Three credits.

**AN 550 Anthropology Internship**

Students may arrange to receive credit for employment experience in various non-college settings. It is also possible to have paid or unpaid professional work entered into the transcript as "no credit." Prerequisite: permission of the departmental coordinator. May be repeated. Variable credit.

**Criminology, Law, and Society****CLS 101 Introduction to Criminology**

Study of the contemporary criminal justice system, major systems of social control and their policies and practices; victimology; juvenile justice; comparative criminal justice of the field. Three credits.

**CLS 150 Criminal Trial Evidence**

Evidence uncovered by the finest detective or the most sophisticated CSI will be of little use to a prosecutor if it is not admissible in the trial of a criminal case or does not satisfy the burden of proof the law imposes. This course explores the basics of the language of a criminal trial: the rules and principles of evidence. What is "relevant"? When will "relevant" evidence be excluded by the rules of hearsay or the defendant's right to confront witnesses? The nature and permissible scope of expert testimony will be an important aspect of the course. How does forensic science translate into court testimony? What other subjects of expert testimony do/should courts recognize? Finally, what is the meaning of "proof beyond a reasonable doubt"? Why are jury verdicts in some celebrated cases only understandable by reference to this basic principle of the criminal process? Students will engage in trial simulations to illustrate various points of the course material. Three credits.

**CLS 175 Special Topics in Criminology, Law, and Society**

Topics vary, but the course explores specific problems, issues, and developments in criminology. Open to all students. May be repeated for credit as topic varies. Occasional offering. Three credits.

**CLS 215 Juvenile Justice**

Study of causative factors of juvenile delinquency and the treatment of juvenile offenders. Specific topics include gang subcultures, peer pressure, juvenile offenses, and the juvenile justice system. Three credits.

**CLS 245 Corrections, Probation, and Parole**

Study of the history, theory, practice and legal environment of incarceration, diversion, community-based correction, and treatment of offenders. Three credits.

**CLS 265 Ethical Decisions and Dilemmas in Criminal Justice**

This course examines the major ethical dilemmas that confront criminal justice professionals throughout their careers. Students are exposed to the philosophical principles of ethical decision making. Students also examine issues-based, practical approaches to ethical issues found in all three branches of the criminal justice system – police, courts, and corrections. Policy issues are reviewed and students are encouraged to engage in discussions of key topics in professional ethics and the delicate

balance between law and justice. Students enrolled in this course will begin to think about the impact and importance of ethical decision making by criminal justice professionals. Three credits.

### **CLS 320 White Collar Crime**

This course considers crimes committed by corporations as well as white-collar criminals: how such crimes are defined; who commits or is victimized by them; which moral, ethical, legal and social contexts promote them; and how society responds. Procedural and policy considerations in the investigation and enforcement of relevant statutes will also be covered, including the concept of legal privilege, the role of the grand jury and other pretrial processes, evidentiary questions, litigation strategies, and potential sanctions and other punishments. Prerequisite: CLS 101. Three credits.

### **CLS 330 Investigations and Forensics**

This course is a comprehensive examination of civil and criminal investigations in both public and private modes, including most major felony processes and relevant civil actions. Focus is on the fundamentals of the investigative process and the range of skills necessary for successful performance and management of investigations, including evidence gathering and analysis, witness assessment, field techniques, and linkage between investigative and prosecutorial agencies. Prerequisite: CLS 101. Three credits

### **CLS 340 Principles of Homeland Security**

Students will gain an understanding of homeland security by analyzing the various security principles and policies that establish a foundation upon which to organize U.S. security efforts as a nation. Students will study how the national strategy aligns and focuses homeland security functions within critical areas such as: (1) intelligence and warning, border and transportation security, domestic terrorism; (2) protecting critical infrastructure and defending against catastrophic terrorism; and (3) emergency preparedness and consequence management. The first area focuses primarily on preventing terrorist attacks, the second area on reducing the nation's vulnerabilities, and the third on minimizing the damage and recovery from the aftermath of terrorist attacks. Prerequisite: CLS 101. Three credits

### **CLS 345 Principles of Private and Corporate Security**

An overview of private and corporate sector justice including perimeter and physical security, intelligence gathering, retail and industrial security, terrorism and executive protection, as well as security in select business and industrial centers. Careers, regulation and licensure, and the debate on professionalization are other areas of major intellectual concern. The course will also familiarize students with the origins and development of private security, with an emphasis on defining security's role in the administration of justice, its historical underpinnings, types of security services in the American marketplace, and the legal aspects of private sector justice. Further considerations are regulation, licensing, the civil and criminal liability of security personnel, and the ongoing constitutional debate that surrounds private security enforcement. Prerequisite: CLS 101. Three credits.

### **CLS 405 Fraud Investigation Techniques**

The course provides an understanding of fraud examination methodology, and sets forth the schemes used by executives, managers, and employees to commit fraud against their organizations. It provides an analysis and taxonomy of various kinds of frauds and includes cases that illustrate and help the student understand each type of fraud. It also introduces the tools and techniques necessary to develop information and evidence when conducting a fraud examination and identifying the perpetrators. It covers how to gather evidence through the examination of documents, interview theory and application, covert operations,

sources of information, accessing online information, tracing illicit transactions, and reporting standards. Prerequisite: CLS 101. Three credits.

### **CLS 410 Criminological Theories**

This course focuses on the study of crimes, criminals, causes of criminal behavior and victimization issues. Students explore how the classical, psychological, sociological, economic, biological and political theories of crime explain criminal behavior, and the impact of these theories on the work of the criminal justice system. Prerequisite: CLS 101, SO 204. Three credits.

### **CLS 490 Criminology, Law, and Society Capstone Project**

This is the capstone course for justice studies students. It will focus on the integration of information learned from different courses with special focus on criminal law and legal issues, theories of crime, juvenile delinquency, law enforcement, corrections, ethics, forensic science, and research methods. This course will be offered to justice studies students in their final semester in which they receive their degrees. Prerequisite: Student must be in the last semester of their Criminology, Law, and Society course work, or receive permission of instructor. Three credits.

## **Sociology**

### **SO 101 Introduction to Sociology**

This course is an overview and survey of the scientific study of human interactions in society. The course explores the basic concepts that are the foundation of the discipline. Students are introduced to research methods, theoretical perspectives, culture, socialization, social interaction, deviance, and inequality. Typically offered every semester. Three credits.

### **SO 105 Chemical Dependency**

The course provides an overview of addictive disorders and investigates three models of dependency: the psychosocial, the bio-medical, and the socio-cultural. Emphasis is on a holistic understanding of the confounding variables of the phenomenon of addiction. Topics include the individual's descent into dependency, the impact of chemical dependency on the family, drugs on the streets of our local communities, cross-cultural drug wars, and prevention, intervention, and treatment strategies. Typically offered fall semester. Three credits.

### **SO 106 Sociology and Global Issues**

This course is an introduction to sociological perspectives on globalization and the global dimensions of problems facing contemporary society. The course will review globalization theories and trends, and the processes and structures of globalization. While the emphasis is on theoretical frameworks and data from sociology, this course takes an interdisciplinary approach to the issues surrounding globalization. Prerequisite: SO 101 recommended. Typically offered fall semester. Three credits.

### **SO 161 Environmental Sociology**

This course is designed as an introductory course on environmental sociology. The course will examine the varied forces and perspectives that have an impact on environmental policy making. Subject areas include environmental policy-making, the concepts of ecology and sustainability, renewable and nonrenewable resources, pollution, energy policy, and global environmental degradation. Prerequisite: SO 101 or permission of instructor. Typically offered every other fall semester (even-numbered years). Three credits.

**SO 200 Race and Ethnicity**

This course explores the causes and consequences of prejudice and discrimination in America. We will connect the historical emergence of racial and ethnic groups to the social, cultural, political, and economic forces that shaped their experiences. The continuing role of these social forces will be highlighted in order to nurture a sociological vision of contemporary minority group life. The course will also accent relations between racial and ethnic groups and the evolution of social movements that resist oppression. Prerequisites: SO 101 recommended. Typically offered fall semester. Three credits.

**SO 202 Sociology of Childhood**

Studying childhood from a sociological perspective means that we look at children's experiences in their larger social, cultural, and historical context. In this course, we will focus on childhood as a social phenomenon, engaging in discourse on topics such as the history and construction of childhood, children's peer cultures, how children experience society, and the intersection of childhood and social problems. Prerequisites: SO 101 recommended. Typically offered spring semester. Three credits.

**SO 204 Deviance**

This course begins with an overview of sociological theories of deviance and applies the different theoretical perspectives to current topics in deviance. A variety of definitions, key theoretical perspectives, and concepts are presented and analyzed in an effort to understand the numerous ways that deviant behavior may be defined, explained and interpreted. The field of deviance provides an opportunity to study interesting and important substantive areas of sociology, as well as an opportunity to study basic concepts and theoretical approaches in sociology. Prerequisite: SO 101 or permission of instructor. Typically offered every other spring semester (even-numbered years). Three credits.

**SO 217 Sociology of Religion**

All forms of religious experience are connected to a social environment. The focus of the course is the impact of the social context upon religious belief and behavior. Special topics include apocalyptic movements, Catholics and modernity, cults, sects, fundamentalism, satanism, conversion experiences, the charismatic movement, and the changing role of women in religious institutions. Prerequisite: SO 101 or permission of instructor. Typically offered every other spring semester (odd-numbered years). Three credits.

**SO 235 Inequality and Social Problems**

This course is an introduction to stratification, class theory, and social inequality, with an emphasis on the United States. We will explore relevant sociological theories and research findings concerning economic, political, and gender disparities, and the social problems created by these structures of inequality. Prerequisite: SO 101 recommended. Typically offered fall semester. Three credits.

**SO 276 Sociology of Gender**

This course explores the social formation of gender inequality as well as the accompanying cultural construction of masculine and feminine ideologies and identities. Our investigations will focus on the following themes: the institutionalization of patriarchy; the intersection of class, power, and racial disparities between men and women; sexual violence against women; the transformation of gender roles; and the social movements and organizations that resist discrimination. Prerequisite: SO 101 recommended. Typically offered every other spring semester (odd-numbered years). Three credits.

**SO 307 Sociological Theory**

This course traces the origin and development of sociological theory from the Enlightenment to the 21st century. The first part of the course will investigate the primary works of the classical theoreticians, focusing on Marx, Durkheim, and Weber. The second part of the course explores contemporary theories that have shaped sociology since the early 1900s, focusing on functionalism, conflict theory, and symbolic interactionism. Additional theories such as social exchange theory, phenomenology, and postmodernism will also be discussed. Prerequisite: SO 101, junior standing or above. Typically offered every other spring semester (even-numbered years). Three credits.

**SO 350 Independent Study — Sociology**

Independent investigation and research into a special topic for selected students. Topics are determined by both student and professor. Prerequisite: permission of faculty member and departmental chair. May be repeated. Variable credit.

**SO 356 Social Research Methods**

This course is an overview of research methodology in the social sciences. The general subject areas include research design, sampling, quantitative and qualitative methods, ethical issues, and computer assisted analysis of results. Prerequisites: junior Sociology major or permission of instructor. Typically offered fall semester. Three credits.

**SO 375 Special Topics in Sociology**

Topics vary, but the focus of this course is an in-depth examination of specific social issues and/or developments in sociology. Prerequisite: junior or senior standing. Occasional offering. Three credits.

**SO 405 Senior Seminar I**

This is a required course for senior Sociology majors. The seminar will review each step of the research process, and students will complete an original research project. Prerequisite: SO 356. Typically offered fall semester. Three credits.

**SO 450 Senior Seminar II**

This course is a capstone course for Sociology majors. It is designed to facilitate critical reflection and analysis through completion of an independent senior project as well as a self-evaluation of sociological skills/knowledge and personal objectives. Prerequisites: SO 356, SO 405. Typically offered spring semester. Three credits.

**SO 550 Sociology Internship**

Students may arrange to receive credit for employment experience in various non-college settings. It is also possible to have paid or unpaid professional work entered into the transcript as "no credit." Prerequisite: permission of the departmental coordinator. May be repeated. Variable credit.

# Theology

Jason King, Chairperson

Emmanuel Afunugo; Kimberly Baker; Patrick Cronauer, O.S.B.; Rabbi Jason Edelstein; Campion Gavaler, O.S.B.; Thomas Hart, O.S.B.; Elliott Maloney, O.S.B.; Christopher McMahon; Fr. Nathan Munsch, O.S.B.; Patricia Sharbaugh

Adjunct Faculty: John Aupperle; Katrina Boosel; Benedict Janecko, O.S.B.; Thomas More Sikora, O.S.B.

The Theology Department at Saint Vincent College offers a rigorous and engaging course of study in theology, embracing St. Anselm's famous description of theology as "faith seeking understanding." In the spirit of the Benedictine tradition, the department teaches students to integrate faith and reason.

## Theology Learning Objectives

- Understand the meaning of the Christian scriptures and the various methods necessary for studying them
- Understand and contextualize the major doctrines of Christianity in general and Catholicism in particular
- Understand the relevance of the Christian tradition to contemporary moral issues
- Understand the Catholic approach, as articulated by the Second Vatican Council, to the true and holy as expressed in other religious and intellectual traditions

The Department of Theology offers a major and a minor:

- A Bachelor of Arts in Theology
- A minor in Theology

## Theology Major Requirements: (30 credits)

The basic requirements are below. Majors wishing to focus on ministry, graduate schools, or teaching high school need further courses chosen in conjunction with the chair of the department.

TH 119 First Theology  
TH 300 Systematics I  
TH 301 Systematics II  
TH 499 Theology Capstone  
One course in scripture (TH 201-249)  
One course in moral theology (TH 250-299)  
One course in doctrines (TH 300-349)  
One course in religious traditions (TH 350-399)  
Two Electives  
Exit Interview: 0 credits

## Theology Minor Requirements (18 Credits)

TH 119 First Theology  
TH 300 Systematics I  
TH 301 Systematics II  
Three other theology courses.

## Typical First-Year Schedule

### Fall Semester

TH 119	First Theology	3
PY 100	Introduction to Psychology	3
MA 104	Elementary Functions	3
	Foreign Language (intermediate level)	3
	Natural Science (Tier 1)	4

All students will take one course designated as a First-Year Seminar (typically this will be TH 119) which will satisfy a Core Curriculum requirement.

### Spring Semester

One course in scripture (TH 201-249)	3	
or		
One course in doctrines (TH 300-349)	3	
History Course	3	
EL 102	Language and Rhetoric	
	Foreign Language (intermediate or advanced level)	3
	Natural Science (Tier 2)	4

## Course Descriptions

### TH 119 First Theology

The objective of the course is to explore the meaning of the Judeo-Christian tradition primarily through the study of the Hebrew and Christian Scriptures, with an appreciation of the various critical methods necessary for further study. Offered every semester. TH 119 is a prerequisite to all other Theology courses. Three credits.

### TH 201 The Primary History of Ancient Israel

An introduction to the study of biblical literature. The course will focus on the primary history of Israel from its beginnings to the eighth century B.C.E., as found in the books of Genesis through 1 Kings. Offered every fall semester. Three credits.

### TH 204 Psalms & Wisdom Literature

This course explores the Wisdom books of the Old Testament (including the deuterocanonical ones) and the book of Psalms. Ancient Near East influences are noted. This course explores how the Wisdom books prepare for the revelation of Jesus as the "Wisdom of God" and the role the Psalms play in the life and worship of ancient Israel, Jesus, the early Church, monks and the laity. Offered every semester. Three credits.

### TH 205 Prophets

This course will offer an overview of biblical prophecy, focusing on the Former, Latter, and Minor Prophets and how these individuals functioned in their societies. Special attention will be given to the historical settings of the prophets, their desire for social justice and the modern day implications of their works. Offered alternating spring semesters. Three credits.

### TH 212 The Synoptic Gospels

A deeper look into the methods of Gospel criticism including an historical approach to the life of Jesus. An introduction to the background and theology of each of the three synoptic gospels, Matthew, Mark, and Luke. Three credits.

### TH 214 Johannine Literature

An introduction to the historical context, literary analysis and theological themes of the Gospel and Letters of John, and an interpretation of the apocalyptic message of the Book of Revelation. Three credits.

**TH 215 Epistles of Saint Paul**

A study of the background and arguments of the Pauline writings. Reading and interpretation of the major epistles, especially as they regard Christian living. Three credits.

**TH 218 Apocalyptic Literature**

A survey of Jewish and Christian literature including a history of the apocalyptic movement in biblical times, the Old Testament books of Ezekiel and Daniel, the "Little Apocalypses" of the Synoptic Gospels and the Book of Revelation. Three credits.

**TH 220 Old Testament Topics**

A more concise examination of one particular Old Testament text or theme. Three credits.

**TH 221 New Testament Topics**

A more concise examination of one particular New Testament text or theme. Three credits.

**TH 230 Biblical Theology**

This course will begin with a study of the book of Exodus through one sharply defined question: What does this book say about God? The study of Exodus will provide the groundwork for an extended discussion of the themes related to this question in the Old Testament, Judaism, The New Testament, and Christianity. The significance of this development for addressing contemporary theological questions will be emphasized. Three credits.

**TH 232 Wisdom Tradition in Theology**

Beginning with a study of the Wisdom literature of the Old Testament, this course will explore Jesus' relationship to Wisdom as well as the influence of the Wisdom tradition on the New Testament and Christian theology. Attention will be given to the themes of creation, incarnation, divinization, grace, and Wisdom or Sophia Christology. The significance of the Wisdom tradition in addressing contemporary theological issues will be emphasized. Three credits.

**TH 235 Women in the New Testament**

An exploration of the roles and responsibilities of women as they are reflected in the texts of the New Testament. Attention will be given to issues of language, power, economics and gender role expectations with a focus on the ways in which early Christianity attempted to liberate people from oppression as well as the ways in which it compromised with the dominant society. Three credits.

**TH 250 Introduction to Moral Theology**

This course is to introduce students to the basic concepts of Catholic moral theology: natural law, conscience and decision making, and the virtues. Three credits.

**TH 255 Religion and Politics**

This course will study the Catholic Church's social doctrine as it relates to issues of politics. It will also focus on the thought of John Courtney Murray, the influence of his thought at the Second Vatican Council and contemporary responses to this school of thought. Three credits.

**TH 265 God, Work, and Money**

Purpose of the course is an exploration of the Catholic Church's social doctrine on and contemporary theological discussions of poverty, work, and economics. Offered every fall. Three credits.

**TH 270 Catholic Marriage**

The purpose of the course is to explore the theological foundations and implications of marriage and family. Offered every fall semester. Three credits.

**TH 275 Catholic Sexual Ethics**

This course will present the understanding of human sexuality and of sexual morality as it has been developed in the continuing Catholic Tradition. This course will explore the broad meaning of human sexuality and the differences in male and female sexuality and the significance of these differences. Furthermore, we will examine the development of the Catholic Tradition regarding sexual morality, beginning with the Scriptures, continuing with the Fathers and medieval theologians. The course will also examine the debates over contraception, the response of the Magisterium to these debates in *Humane Vitae* and the reaction to this magisterial document. Offered every spring semester. Three credits.

**TH 280 Catholic Bioethics**

This course is to introduce students to how Catholic beliefs provide a framework for assessing bioethical issues, including health, health care, death, suffering, and medicine. Offered every semester. Three credits.

**TH 300 Systematics I**

The purpose of the course is to provide students with a critical and systematic overview of the central tenets of Christian faith from the Roman Catholic perspective and the perspective of contemporary theology as it seeks to engage a pluralistic world. Prerequisite: TH 119 First Theology. Offered every fall semester. Three credits.

**TH 301 Systematics II**

This course introduces students to contemporary developments in theology with particular attention given to the task and language of theology, doctrines of divine revelation and grace, and the experience of being human. In addition, the course will consider how the pastoral life of the Church both expresses and shapes theological thought. Prerequisite: TH 300 Systematics I or permission of chair. Three credits.

**TH 310 Theology of Early Christianity**

This course will trace the history and thought of the first 500 years of Christianity. Topics of study include Christianity's tenuous relationship with Roman society, Church life and practice, and the development of doctrine. Three credits.

**TH 312 Christian Martyrdom**

This course will explore the witness of Christian martyrs from the early Christian period to contemporary times. The study will include consideration of varying definitions of martyrdom, accounts of martyrdom, and the context in which martyrdom occurs. Three credits.

**TH 315 Theology of Augustine**

The theology of Augustine is foundational for western Christianity. This course will introduce students to this 5th century North African bishop and to the development of his thought. Our focus will be the reading of primary texts including selections from major treatises as well as his preaching and exegetical works. Three credits.

**TH 320 Theology of Medieval Christianity**

This course will trace the history and thought of Christianity in the medieval time period (800-1500). Topics of study will include the development of doctrine, theological method, and the emergence of new religious orders. Three credits.

**TH 325 Vatican II History and Theology**

This course provides students with a historical and theological overview of the Second Vatican Council as well as an examination of the council's major documents. The perspective taken is that Vatican II represents an important moment in the development of

the Catholic tradition, representing both theological innovation as well as signaling fundamental continuity in the life of the Church. Three credits.

### **TH 327 Living Theology**

The course is designed to help students critically engage the concrete experience of economic struggle and injustice in a foreign country through the lens of contemporary theology. As a travel service learning course, students will broaden their understanding of the developing world and the place of faith and theology therein. Prerequisite: Permission of Instructor. Three credits.

### **TH 330 Catholic Sacraments**

The Sacraments of the Christian tradition will be studied from a historical perspective. In addition, they will be seen in relation to the social sciences. Finally, the Sacraments will be considered in light of personal, communal, ecclesiastical and global spirituality. Three credits.

### **TH 332 Ecclesiology**

A theological study of the teaching of the Catholic Church concerning the origin and meaning of the Church of Jesus Christ. Primary emphasis is placed upon biblical testimony and the teaching of the Second Vatican Council. The study also includes an overview of the Church in history as well as contemporary issues. Three credits.

### **TH 333 The Modern Papacy**

This course covers the role and theology of the papacy from Pius IX to the present. Three credits.

### **TH 334 Christology**

A biblical study of the life and teaching of Jesus. An examination of various portraits of Jesus from earliest Christianity through the Middle Ages to contemporary images. Three credits.

### **TH 335 Christian Doctrine of God**

The course will examine the historical development of the Christian doctrine of God and will explore attempts by contemporary theologians to appropriate this doctrine. Three credits.

### **TH 340 Basics of Catholic Faith**

Based on the *Catechism of the Catholic Church*, this course addresses the most basic elements that together make up the living reality of Catholic faith: Gospel, Jesus of Nazareth, Church, Jewish roots, liturgy, doctrine, Christian moral life, tradition, and the Kingdom of God. Offered every semester. Three credits.

### **TH 342 The Benedictine Heritage**

An interpretation of the past, present and future significance of the peculiar Christian lifestyle known as Benedictine monasticism. A study of the Rule of Benedict of Nursia which attempts to translate the great Christian ideals of love of God and love of neighbor into a life of common worship and community service. This has resulted in a reorientation of the values of individuals and groups with lasting spiritual and cultural significance. Offered every semester. Three credits.

### **TH 343 Mariology**

This course offers a theological study pertaining to the Church's teachings on the Virgin Mary. This study will include: pertinent texts from Sacred Scripture, post-canonical literature, teachings from the early councils, Mary and the Patristics, scholastic Mariology, Mary and the Protestant Reformation, dogmas concerning the Immaculate Conception and the Assumption, Mary in Art, Marian devotions, Marian apparitions, and Mary within the context of the Second Vatican Council with subsequent articulation. Three credits.

### **TH 344 Classics in Catholic Theology**

The course will focus on five major periods in the history of Roman Catholic theology: the Patristic Period, the Middle Ages, the Counter Reformation, the Modern Period, and the Contemporary or "Postmodern" Period. The course will focus on one major work from an author associated with each of the five aforementioned periods. Three credits.

### **TH 345 Christian Spirituality**

This course will explore the rich spiritual tradition of Christianity through a study of primary texts from the early Church period up to the present. In reading spiritual texts theologically, students will discover how spiritual experience not only derives from but also shapes one's beliefs, practices, and way of life. Three credits.

### **TH 348 Film, Fiction, and Faith**

This course examines both the distinctive ways film and literary fiction explore the basic tenets of the Christian faith and the way Christian theology understands film and literary fiction. Three credits.

### **TH 349 Topics in Theology**

A more concise examination of one particular topic in Theology. Three credits.

### **TH 350 Holocaust Questions**

An inquiry concerning the "kingdom of death," and the religious and moral issues attending the building of that kingdom. Hitler's war against the Jews assaulted the fundamental values of Biblical religion. This course will confront the implications for contemporary humanity of the shaking of these foundations. Three credits.

### **TH 355 History of Jewish Thought**

This course is a study of the evolution of Jewish thought as it interacted with and grew from the varied environments in which the Jews found themselves from the biblical period to the present day. Three credits.

### **TH 360 Protestant Traditions**

A course dealing with the foundations which the Reformation Period laid for Protestantism in Europe. Luther and basic Protestant tenets will be explored as well as the Wesleyan movement in England and 19th-century American revivalism. Offered every semester. Three credits.

### **TH 362 Religion in America**

A study of the American experience from the colonial period to the present from the perspective of religion and its relation to the individual and society. Three credits.

### **TH 365 Twentieth Century Protestant Theologians**

The course begins with a brief discussion of late nineteenth foundational thinking. The impact of Karl Barth and Paul Tillich will be explored followed by the thinking of the German martyr Dietrich Bonhoeffer. The social impact of Reinhold and Richard Niebuhr explores twentieth century issues of economic and political concern. Racial justice in the writing of Martin Luther King and James Cone will be coupled with feminist theologians such as Rosemary Reuther. The course concludes with an examination of the return of the evangelical theology of Bernard Ramm and Carl Henry. It is understood that other theologians will be a part of this study. Three credits.

### **TH 366 Religious Beliefs of Abraham Lincoln**

A study of Abraham Lincoln's unique and strong faith; his religious convictions in relationship to the context of his childhood, his presidency, nineteenth-century America, and their effect upon the age in which we live. Three credits.



TH 380 World Religions

A survey of the world religions including Hinduism, Buddhism, Islam, as well as Shintoism, Confucianism and Taoism. Included will be the religious practices, customs and beliefs of each tradition. This course also addresses Catholic responses to the significance and meaning of the diversity of world religions. Three credits.

TH 385 Buddhism

This course is intended to give the student as overview of The Buddhist Tradition. It will examine the life of Siddhartha Gautama the historical Buddha. The basic views and beliefs of Buddhism along with the variations of the three traditions of Buddhism will be discussed. This course will also examine the life of the current Dali Lama, emphasizing his life as well as his thinking for the twenty first century. Comparisons with The Christian Tradition will be explored. Three credits.

TH 400 Methods of Religious Education

A study of the key documents concerning Catechesis in the church that come from the Vatican and the USCCB. It discusses some basic elements of Religious Education from elementary age students through adults, works on Liturgical and sacramental preparation, Youth and Young Adult Ministry, retreat planning, elementary and high school teaching, and Campus Ministry. Offered alternating spring semesters. Three credits.

TH 410 Ministry Field Experience

This seminar serves as a complement to a ministry internship placement that will be completed concurrently or in the previous summer. Readings, reflection, and group conversations will help students to integrate a theology of ministry with their field experience and developing vocation. Students will learn to establish ministry goals and objectives for their ministry placements. Offered in the fall semester. Majors and minors only. One credit.

TH 499 Theology Capstone

This seminar course requires majors to complete a research project under the direction of the faculty member. Prerequisites: TH 300 Systematics I & TH 301 Systematics II. Offered every semester.

TH 550 Theology Internship

In conjunction with the chairperson, the student pursues an internship which enables the student to implement various teaching skills. It is expected that the student can utilize acquired academic knowledge and manifest leadership abilities in a religious education setting. Offered every semester. Zero to three credits.

Undeclared

Alice J. Kaylor, *Coordinator*  
Mark Abramovic; Doreen Blandino; Nathan M. Cochran, O.S.B.; Thaddeus Coreno; David W. Grumbine; Sara Hart; Timothy Kelly; Sandra Quinlivan; Nancy A. Rottler; John J. Smetanka; Peggy Smith; Theresa Torisky; Margaret Watkins

Many first-year college students are unsure about a specific course of studies or a possible career, and they might want to explore several options in college. Saint Vincent College recognizes that high school seniors might not be prepared to make a definite choice about an academic major and consequently offers the undeclared major for those students who have not yet arrived at a definite choice concerning their future.

The undeclared major is transitional in nature, but advising and supervision provide the framework found in any traditional major. On arrival at Saint Vincent, the undeclared student will be assigned an experienced and trained academic advisor from the college faculty who will assist the student in selecting courses from the Core Curriculum of the College which fit individual interests and expose the student to various academic courses and career options. The advisor will continue to monitor the student's progress, help with future course selection, and ultimately assist the undeclared major in the selection of a traditional academic major. In order to complete requirements for the selected major, the student will declare a major no later than the spring semester of the sophomore year.

In addition to the academic advisor, the Career Center at Saint Vincent College also helps the undeclared major select the right major and career. The Career Center administers a battery of personal inventory tests which assess a student's skills, interests, and potential. The Career Center also sponsors career seminars, assists in the preparation of resumes, maintains placement files, coordinates internships and on-campus recruiting, and maintains an up-to-date library of career resources.

Typical First-Year Schedule:\*

	Fall	Spring
Language and Rhetoric	3	3
or		
First Theology	3	3
Mathematics	3	
History	3	3
or		
Social Sciences	3	3
Modern Language		3
Natural Sciences		4
Modern Language	3	
Total	15	16

All students will take one designated as a First-Year Seminar which will satisfy a Core Curriculum requirement.  
*\*Course selection will depend upon the individual interests of the student. For example, a student considering a major in the social sciences will enroll in the introductory level course for the major; i.e. SO 101 Introduction to Sociology or PY 100 Introduction to Psychology in the fall semester.*

# Register and Directory

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*Chancellor*, Rt. Rev. Douglas R. Nowicki, O.S.B., B.A., M.Div., Ph.D.  
*President*, Br. Norman W. Hipps, O.S.B., B.A., M.A., PhD.  
*Vice President for Academic Affairs and Academic Dean*,  
John J. Smetanka, B.S., M.S., Ph.D.  
*Dean of Studies*, Alice J. Kaylor, B.A. M.S.  
*Vice President for Finance and Administration*, Dennis P. Thimons,  
B.A.  
*Vice President for Student Affairs*, Mary L. Collins, B.A., M.A.  
*Vice President for Institutional Advancement*, Tracy Branson, B.S.  
*Director of Athletics*, Fr. Myron Kirsch, O.S.B., B.A., M.Div., M.B.A.

## Alumni Council Officers 2011-2013

*President*, Mr. Richard A. Stillwagon, P'65 C'69  
*President Elect*, Mr. Edward McCormick, C'79

## **Administrative Offices**

Listed Alphabetically 2011

### **Academic Affairs**

*Vice President for Academic Affairs and Academic Dean*, John J. Smetanka, B.S., M.S., Ph.D.

*Dean of Studies*, Alice J. Kaylor, B.A., M.S.

*Associate Dean of Studies*, Sandra Quinlivan, B.A., M.A.

*Assistant to the Vice President for Academic Affairs*, Julia A. Cavallo, B.A., M.S.

*Academic Advisor*, Sara Hart, B.A., M.S.

### **Admission and Financial Aid**

*Assistant Vice President of Admission*, David A. Collins, B.S., M.Ed.

*Associate Director*, Donna M. Edmonds, B.A., M.A.

*Associate Director*, Christina Andrae, B.A., M.M.

*Associate Director*, Melissa Sobek, B. S., M.Ed.

*Director*, Kimberly Woodley, B.A., M.A.

*Assistant Director*, Virginia E. Halucka, B.S.

*Assistant Director*, Heather Wasler, B.A., M.A.

*Counselor*, Patrick Conroy, B.A.

*Counselor*, Deborah Killimayer, B.S.

*Counselor*, Chanell R. Wade, B.A.

*Counselor*, Katelyn Karasack, B.S.

*Counselor*, Timothy O'Mara, B.A.

*Director of Operations and Research*, William A. Barnes, B.S.

*Coordinator of Campus Events and Visits*, Amber Keefer, B.A.

### **Alex G. McKenna School of Business, Economics, and Government**

*Dean*, Gary Quinlivan, B.A., Ph.D.

*Program Coordinator*, Eva Kunkel, B.S., M.S.

### **Athletics**

*Director*, Myron M. Kirsch, O.S.B., B.A., M.Div., M.B.A.

*Assistant Athletic Director and Compliance Officer*, Susan Hozak, B.A.

*Sports Information Director*, Jeffrey Zidek, B.A.

*Assistant Director of Sports Information*, James Berger, B.A.

### **Book Center**

*Manager*, Anthony Grossi, O.S.B., B.A., M. Div.

### **Business Affairs**

*Vice President of Finance and Administration*, Dennis P. Thimons, B.A.

*Controller*, John J. Kachmar, B.S., C.P.A.

*Director of Financial Planning, Analysis and Accounting*, Gina Nalevanko, B.S., C.P.A.

*Supervisor of Accounting & Title IX Coordinator*, Patricia Dellinger, B.S., M.S.

### **Campus Life**

*Director*, Jason Winters, B.S., M.A.

*Coordinator of Multicultural Student Life*, Jeffrie Mallory, B.A.

*Coordinator*, Campus Recreation, James W. Walters, B.A., M.S.

### **Campus Ministry**

*Director*, Vincent Zidek, O.S.B., B.S., M.Div.

*Assistant Director*, Fr. Jean-Luc Zadroga, O.S.B.

*Campus Minister*, Rev. John Aupperle

### **Career Center**

*Director*, Courtney Baum, B.S., M.A.

*Associate Director*, Dennis S. Gilbert, B.A., M.A.

*Internship Coordinator*, Christine Sundry-Gregorini, B.A.

### **Center for Political and Economic Thought**

*Director*, Gary M. Quinlivan, B.A., Ph.D.

*Program Coordinator*, Eva Kunkel, B.S., M.S.

### **Environmental Education**

*Director*, Angela Belli, B.S., M.S.

*Coordinator*, Beth Bollinger, B.S.

### **Event and Conference Services**

*Director*, Kathleen A. Pantalone, B.S.

*Assistant Director, Sales and Marketing*, Christina B. Hartman, B.S.

*Assistant Director, Operations Management*, Angela M. Zalich, B.S.

### **Facility Management**

*Facility Director*, Lawrence D. Hendrick

### **Fine Arts**

*Director of The Saint Vincent Art Gallery and Artistic Director of the Saint Vincent College Concert Series*, Nathan Cochran, O.S.B., B.A., M.Div., M.S.

*Director of Camerata*, Stephen Concordia, O.S.B., B.M., M.M.

### **Food Service**

*Senior General Manager*, Reggie Esmi

*Executive Chef*, Rick Laskie

*Director of Catering*, Julia Molnar

*Executive Sous Chef*, Mike Logesky

*Executive Sous Chef*, Dan Keeley

*Assistant Director of Retail*, Chris Kimmel

*Office Manager*, Marty Radocaj

*Director of Board Operation*, Leo Cavanaugh

## **Fred M. Rogers Center for Early Learning and Children's Media**

*Senior Fellow, Maxwell King, B.A.*

*Executive Director, Rita Catalano, B.A., M.A.*

*Archivist Emeritus, David A. Kelly, O.S.B., B.S., M.A., J.C.L., M.C.L., MLIS*

*Archivist, Emily Uhrin, B.A., MLIS*

*Early Learning Program Environment Manager, Michael Robb, Ph.D.*

*Administrative Assistant, Cynthia Scarpo, B.S.*

## **Graduate and Continuing Education**

*Coordinator, Lisa Glessner, B.A., M.Ed.*

## **Human Resources**

*Director, Judith Maher, B.A., J.D.*

*Administrator of Human Resource Services, Barbara Joyce*

## **Information Services**

*Coordinator of Academic Computing, Patricia A. Babusci*

*Manager of Administrative Computing, J. Roberto Wisnesck, B.A.*

*Administrative Systems Analyst, Nancy A. Ramaley, B.S.*

*Desktop Analysts, Roger Wilson, B.S., and Ian Dunlap, B.A.*

*Network Services Manager, Michael Gerhart, B.S.*

*Director, User Services, Abdul Kazi, B.S.*

## **Institutional Advancement**

*Vice President for Institutional Advancement, Tracy H. Branson, A.B.*

*Director of Foundation and Grants, Christine Foschia, B.A., M.A.*

*Assistant Director of Foundation and Grants, Ramie Ortiz, B.F.A.*

*Assistant Director of Foundation and Grants, Linda Morlacci*

*Grants Assistant, Foundation and Grants, Chris Bierbower*

*Director of Advancement Communications and Events, Joan Aungier Davis, B.A.*

*Assistant Director of Advancement Communications and Events, Laura Gerhart, B.A.*

*Director of Stewardship and Donor Relations, Beth Conway, B.S., M.S.*

*Director of Annual Fund, Alicia M. Barnes, B.A.*

*Director of Advancement Services, Jennie Miller, B.S.*

*Manager, Advancement Services, Jill Bush, B.A.*

*Manager, Advancement Services, Marsha Brasile, B.S.*

*Director of Alumni Relations, Michael C. Gerdich, B.A.*

*Director of Development, Chuck Holland, B.A.*

*Director of Development, Edward Nemanic, CFP®*

*Development Officer, Don Paul Harris*

*Alumni Secretary, Mary Ann Dunlap*

## **Marketing and Enrollment**

*Director, Multimedia Services, David Safin, B.A., M.S.*

*Web Coordinator, Cindy Hoffman, B.S.*

*Multimedia Production Assistant, Carol Riddle*

*Public Relations Director, Donald A. Orlando, B.A.*

## **Institutional Research and Assessment**

*Director, Maren N. Hess, B.S., M.B.A.*

## **Kennametal Center for Operational Excellence (KCOE)**

*Executive Director, David Adams, B.S.C.E.*

*Assistant Director, Steven Leuschel, B.A.*

*Senior Consultant, Richard F. Kunkle, M.D., FACEP*

## **Libraries**

*Director, David A. Kelly, O.S.B., B.S., M.A., J.C.L., M.C.L., MLIS*

*Special Collections Librarian, Chrysostom Schlimm, O.S.B., B.A., M.Div., M.A., M.L.S.*

*Public Services Librarian, Denise A. Hegemann, B.A., M.T.S., M.L.S.*

*Cataloger, Elizabeth DiGiustino, B.A., M.S.L.S.*

*Assistant Public Services Librarian, Marlo Verrilla*

## **Opportunity/Act 101 Program**

*Director, Nancy A. Rottler, B.A., M.A.*

*Tutorial Coordinator/Academic Advisor, Peggy Schlosnagle Smith, B.A., M.A.*

*Academic Advisor, Theresa Torisky, B.A., M.A., M.S.*

*Academic Advisor, Sara Hart, B.A., M.S.*

## **Post Office**

*Manager, Donna Werner*

*Assistant Manager, Benedict Janecko, O.S.B.*

## **President's Office**

*Executive Assistant, Patricia Owens*

## **Prevention Projects**

*Executive Director, Donna Kean, B.S.W., M.S.*

*Intervention Services Manager, Georgia Shalek, B.S.*

*Intervention Specialist, Rebecca Casale, B.S., B.A., M.S.Ed.*

*Intervention Specialist, Lorri Jo Kujawski, B.A., M.S.*

*Intervention Specialist, Lisa Rizza, B.A., M.A.*

*Intervention Specialist, Tracy Thompson, B.A.*

*Prevention Specialist, Debora Babilya, B.A.*

*Prevention Specialist, Hope Balanti, B.S.*

*Prevention Specialist, Anna Marie Blon, B.S.*

*Prevention Specialist, Stephanie Frey, B.A.*

*Prevention Specialist, Jerry Hopkins, B.A., M.S.*

*Prevention Specialist, Joanne Krynicki, B.S.*

*Prevention Specialist, Linda LaRue, B.S.*

*Prevention Specialist, Sharon Lewis, B.A.*

*Prevention Specialist*, Dennis McDonough, B.S.  
*Prevention Specialist*, Diane Meadows, B.A.  
*Prevention Specialist*, Beth Pollick, B.S., M.Ed.  
*Prevention Specialist*, Kathryn Senic, B.A.  
*Student Assistance Program Coordinator*, Patricia Morhack, B.A.  
*Student Assistance Program Assistant Coordinator*,  
Heather Meyer, B.A., M.S.

### **Public Safety**

*Director*, Steven D. Brown, B.S., M.S.  
*Fire Chief*, Terry Noel, B.S.

### **Registrar & Records**

*Registrar*, Celine R. Brudnok, B.S., M.B.A.  
*Assistant Registrar*, Julia A. Cavallo, B.A., M.S.

### **Residence Life**

*Director*, Bob Baum, B.A., M.S.W.  
*Coordinator*, Deanna Wicks, B.A.

### **School of Humanities and Fine Arts**

*Dean*, Rene Kollar, O.S.B., B.A., M.Div., M.A., Ph.D., F.R. Hist. S.

### **Herbert W. Boyer School of Natural Sciences, Mathematics, and Computing**

*Dean*, Stephen Jodis, B.S., M.S., Ph.D.  
*Biotechnology Director*, Mandy Raab, B.A., MSIS, Ph.D.  
*Lab Manager, Biology*, Molly Grace, B.A.  
*Assistant Lab Manager, Chemistry*, Laura Wilkinson, B.S.  
*Chemical Hygiene Coordinator*, Romi Green, B.A.  
*Director, ScienceWISE*, Richard Watson, B.A., M.A., Ph.D.  
*Nurse Anesthetist Program Coordinator*, Bettie Davis, B.S., M.S.,  
Ph.D.

### **School of Social Sciences, Communication, and Education**

*Dean*, Mary Beth Spore, B.A., M.A., Ph.D.

### **Service Learning and Campus Outreach**

*Director*, Kelly King, B.S., M.A.  
*Assistant to the Director*, Reginald Butler, B.A.

### **Small Business Development Center**

*Executive Director, Small Business Development Center and Center  
for Global Competitiveness (C.G.C.)*, James H. Kunkel, B.S., M.B.A.  
*Senior Business Analyst*, Peter Tulk, B.S.  
*Business Analyst*, Paul Robl, B.S.  
*Business Analyst*, Timothy Bates, B.S.  
*Global Trade Manager*, Victoria A. Gyenes, B.S.  
*Educational Program Coordinator*, Kim Shumaker, B.S.  
*Educational Program Coordinator*, Linda Rodkey  
*Office Manager*, Anita Hudock

### **Stage and Theatre**

*Director and Producer*, Colleen H. Reilly, M.F.A.  
*Technical Director*, Caitlin M. Marietti, B.A.

### **Student Affairs**

*Vice President for Student Affairs*, Mary L. Collins, B.S., M.A.

### **Study Abroad Program**

*Director*, Elizabeth Bennellick., B.S., M.A.

### **Attending Physicians**

#### **Chestnut Ridge Primary Care Weldon Division**

Donald J. Jakubek, M.D.  
Aldo J. Prosperi, M.D.  
Michael Weinberg, M.D.

### **Wellness Center**

*Director*, Mary Alice Armour, RN, BSN  
*Staff Nurse*, Billie Ditch, RN, BSN  
*Personal Counselor*, Amy Meade, LSW  
*Personal Counselor*, Gretchen Flock, M.S., L.P.C.  
*Medical Assistant*, Kathy Prosperi

# The Faculty 2011-2013

**A. Mark Abramovic**, *Instructor in Finance*; B.S., Penn State University; M.B.A., University of Pittsburgh. 2007-

**Emmanuel Obimma Afunugo**, *Assistant Professor of Theology*; M.Div., Kenrick Theological Seminary; J.C.D., University of Saint Thomas Aquinas (Rome); S.T.L., The Catholic University of America; S.T.D., Pontifical John Paul II Institute for Studies in Marriage and Family. 1999-

**Benoit Alloggia, O.S.B.**, *Instructor of Modern and Classical Languages*; B.A., University of Angelicum, Rome; Diplome in Nursing, University of Sapienza, Rome; M.A., Middlebury College

**Bruce A. Antkowiak**, *Professor of Law*; B.A., Saint Vincent College; J.D., Harvard Law. 2011-

**Daniele Arcara**, *Assistant Professor of Mathematics*; B.S., Universita' di Torino; Ph.D., University of Georgia. 2006-

**Kimberly Baker**, *Assistant Professor of Theology*; B.A., Agnes Scott College; M.Div., The Southern Baptist Theological Seminary; Ph.D., University of Notre Dame. 2008-

**James G. Barnett**, *Associate Professor of Biology*; B.S., Ph.D., University of California at Davis. 1985-

**Kathleen A. Beining**, *Instructor of Education*; B.S., Indiana University of Pennsylvania; M.S., Saint Vincent College. 2009-

**Elaine M. Bennett**, *Assistant Professor of Anthropology*; B.A., University of Pittsburgh; M.P.H., Southern Connecticut State University; M.A., University of Connecticut; Ph.D., University of Connecticut.

**Bruce D. Bethke**, *Associate Professor of Biology*; B.A., The College of Wooster; M.S., Ph.D., The Catholic University of America. 1996-

**Doreen Blandino**, *Professor of Modern and Classical Languages and Liberal Arts*; B.A., State University of New York at Oswego; M.A., Ph.D., State University of New York at Buffalo. 1986-

**Gilbert M. Bogner**, *Associate Professor of History*; B.A., Ohio State University; M.A., Ph.D., Ohio University. 1998-

**Michael W. Botsko**, *Professor of Mathematics*; B.S., M.A., Duquesne University; Ph.D., University of Pittsburgh. 1967-

**David E. Carlson, O.S.B.**, *Associate Professor of Computing and Information Science*; B.S., M.A., Mathematics, Pennsylvania State University; M.S., Computer Science, Syracuse University. 1985-

**Colleen Carr**, *Assistant Professor of Computing and Information Science*; B.S.E.E., M.S.C.S., University of Pittsburgh. 1982-

**Thomas Cline**, *Professor of Marketing*; B.A., University of Virginia; M.B.A. University of Virginia; Ph.D., University of Cincinnati. 2002-

**Wulfstan Clough, O.S.B.**, *Associate Professor of English*; B.A., University of Delaware; Ph.D., University of Notre Dame. 1996-

**Nathan M. Cochran, O.S.B.**, *Instructor in Fine Arts; Director of the Saint Vincent Gallery; Artistic Director of the Saint Vincent College Concert Series*; B.A., The Pontifical College Josephinum; M.Div., Saint Vincent Seminary; M.S., Pratt Institute. 1998-

**Stephen Concordia, O.S.B.**, *Assistant Professor of Fine Arts*; B.M., M.M., New England Conservatory of Music; Magistero (diplomas), Pontifical Institute of Sacred Music. 2008-

**Cyprian G. Constantine, O.S.B.**, *Assistant Professor of Fine Arts; Director of Liturgical Formation, Saint Vincent Seminary*; B.Mus.Ed., D.M.A., University of Colorado; M.Div., Saint Vincent Seminary; M.M., Northwestern University. 1998-

**Melissa A. Cook**, *Associate Professor of Communication*; B.A., Washington and Jefferson College; M.P.A., University of Pittsburgh; Ph.D., Duquesne University. 2004-

**Thaddeus Coreno**, *Associate Professor of Sociology*; B.S., John Carroll University; M.A., Ph.D., Kent State University. 1996-

**Patrick Cronauer, O.S.B.**, *Associate Professor of Theology*; B.A., Assumption College; M.Div., Weston School of Theology; S.S.L. Pontifical Biblical Institute, Rome; S.S.D. Ecole Biblique et Archeologiques Francaise, (Jerusalem). 1999 -

**Bettie Davis**, *Assistant Professor of Chemistry*; B.S., James Madison University; M.S., Ph. D., Medical College of Virginia, Virginia Commonwealth University.

**Ronald Davis**, *Associate Professor of Communication*; B.S., Indiana University of Pennsylvania; M.Ed., Ed.D., Auburn University. 2005-

**Robert J. DePasquale**, *Professor of Accounting*; B.S., Saint Vincent College; M.B.A., Ph.D., University of Pittsburgh; C.P.A. (Pennsylvania). C.M.A., C.F.M. 1978-

**Eric Duffy**, *Assistant Professor of Philosophy*; B.A., Hiram College; M.A., Ph.D., Duquesne University. 2010-

**Jason Z. Edelstein**, *Associate Professor of Theology*; B.A., M.A., University of New Hampshire; BHL, M.A.H.L., D.D., Hebrew Union College; D.Min., Pittsburgh Theological Seminary. 1995-

**Dawn Edmiston**, *Assistant Professor of Management and Marketing and Program Director of Health Services Leadership*; A.A. Elmira College; B.S. Rensselaer Polytechnic Institute; M.B.A. Columbia University; D.M. University of Maryland College. 2005-

**Russell J. Edwards**, *Instructor of Education*; B.S., Indiana University of Pennsylvania; M.A., Millersville University. 2005-

**Veronica I. Ent**, *Associate Professor of Education*; B.A., University of Findley; M.A., M.Ed., Ohio University; Ed.D., University of Pittsburgh. 2002-

**Thomas Ernst**, *Assistant Professor of Modern and Classical Languages*; B.A., Clarion University; M.A. French, M.A. German, Ph.D., University of Pittsburgh. 2000-

**Charles Fazzi**, *Professor of Accounting*; B.S., M.B.A., Ph.D., Pennsylvania State University. 2002-

**Caryl L. Fish**, *Associate Professor of Chemistry*; B.A., Manchester College; M.B.A., University of Dayton; Ph.D., State University of New York College of Environmental Science & Forestry. 1991-

**Daryle H. Fish**, *Associate Professor of Chemistry*; B.S., M.S., Ph.D., State University of New York College of Environmental Science and Forestry. 1991-

**Matthew A. Fisher**, *Associate Professor of Chemistry*; B.A., Temple University; Ph.D., University of Wisconsin-Madison. 1995-

**Mark Floreanini, O.S.B.**, *Assistant Professor of Fine Arts*; B.A., Saint Vincent College; M.A., Saint Vincent Seminary; M.F.A., Savannah College of Art and Design. 2005-



**Paul Follansbee**, *James F. Will Professor of Engineering Science*; B.S.E., Duke University; M.S., Rensselaer Polytechnic Institute; Ph.D. Carnegie Mellon University. 2008-

**Jerome C. Foss**, *Assistant Professor of Politics*; B.A., University of Dallas; M.A. and Ph.D., Baylor University. 2011-

**Janet L. Franicola**, *Assistant Professor of Education*; B.S., Indiana University of Pennsylvania; M.S., California University of Pennsylvania; Ed.D., University of Pittsburgh. 2010-

**Campion P. Gavalier, O.S.B.**, *Associate Professor of Theology*; B.S., Saint Francis College; S.T.L., Pontifical Atheneum of Sant' Anselmo, Rome. 1962-

**Jeffrey L. Godwin**, *Associate Professor of Management*; B.B.A., The College of William and Mary; M.Div., Wesley Theological Seminary; M.B.A., West Virginia University; Ph.D., Virginia Tech. 2010-

**Vicente Gomis-Izquierdo**, *Assistant Professor in Modern and Classical Languages*; B.A., Universidad de Alicante, Spain; M.A., Kansas State University; Ph.D., University of Kansas. 2005-

**Michelle Gil-Montero**, *Assistant Professor of English*; B.A., Brown University; M.F.A., University of Iowa Writers' Workshop. 2007-

**Steven J. Gravelle**, *Associate Professor of Chemistry*; B.A., St. John's University (MN); M.S., Ph.D., Northwestern University. 1991-

**David W. Grumbine, Jr.**, *Associate Professor of Physics*; B.S., Physics, Villanova University; B.S., Comprehensive, Villanova University; M.S., Physics, Lehigh University; Ph.D., Physics, Lehigh University. 2001-

**Thomas M. Hart, O.S.B.**, *Instructor in Theology*; B.A., Franciscan University of Steubenville; M.Div., Saint Vincent Seminary; Graduate studies, The Catholic University of America.

**Kristen R. Harty**, *Associate Professor of Education*; B.S., Pennsylvania State University; M.Ed., Ph.D., University of Pittsburgh. 2003-

**Andrew R. Herr**, *Associate Professor of Economics*; B.S., N.C. State University; M.A., Ohio State University; Ph.D., Indiana University-Bloomington. 1996-

**Boniface Hicks, O.S.B.**, *Assistant Professor of Computing and Information Science*; B.Sc., M.Sc., Ph.D., Pennsylvania State University; M.A., M.Div., Saint Vincent Seminary. 2007-

**Norman W. Higgs, O.S.B.**, *Associate Professor of Mathematics*; B.A., Saint Vincent College; M.A., Ph.D., Northwestern University. 1972-1974, 1976-

**William J. Hisker**, *Professor of Management*; B.A., Saint Vincent College; MRCPL, University of Oklahoma; M.Div., Saint Vincent Seminary; Ph.D., University of Pittsburgh. 1974-

**Thomas C. Holowaty**, *Associate Professor of Accounting*; B.S., M.B.A., Duquesne University; C.P.A. (Pennsylvania); Member of the Pennsylvania Institute of Certified Public Accountants. 1972-

**Vernon A. Holtz, O.S.B.**, *Associate Professor of Psychology*; B.S., Lock Haven State College; M.A., Saint Vincent College; M.A., The Catholic University of America; Ph.D., Duquesne University. 1966-

**Peter M. Hutchinson**, *Professor of Economics*; B.A., Saint Vincent College; M.A., Ph.D., University of Pittsburgh. 2002-

**Cuthbert A. Jack, O.S.B.**, *Instructor in Modern and Classical Languages*; B.A., Duquesne University; R.N., Mercy Hospital School of Nursing; M.A., M.Div., Saint Vincent Seminary; M.A., Middlebury College; Studies, Université Catholique de l'Ouest, Angers, 1992; Graduate Studies, Université de Paris, Nanterre. 1992-

**Benedict Janecko, O.S.B.**, *Professor of Theology*; B.A., Saint Vincent College; S.T.L., Pontifical Atheneum of Sant' Anselmo, Rome; S.S.L., Pontifical Biblical Institute, Rome. 1969-

**Jason R. Jividen**, *Assistant Professor of Politics*; B.A., M.A., Marshall University; Ph.D., Northern Illinois University. 2010-

**Stephen Jodis**, *Professor of Computing and Information Science*; B.S., M.S. and Ph.D. Auburn University. 2011-

**Tina Phillips Johnson**, *Assistant Professor of History*; B.A., Oklahoma State University; M.L.A., Johns Hopkins University; M.A., Ph.D., University of Pittsburgh. 2005-

**Philip M. Kanfush, O.S.B.**, *Assistant Professor of Education*; B.A., University of Pittsburgh; M.B.A., University of Pittsburgh; B.A. Saint Vincent College; M.A., M.Div., Saint Vincent Seminary; M.Ed. (Special Education), Ph.D., West Virginia University. 2003-

**Alice Kaylor**, *Instructor in Liberal Arts; Dean of Studies and Director of the Liberal Arts Program*; B.A., Seton Hill College; M.S., State University College of Buffalo. 1978-

**Karen A. Kehoe**, *Assistant Professor of History*; B.M.E. Milton College; B.A., University of Wisconsin-Oshkosh; M.A., Ph.D., Marquette University. 2006-

**James S. Kellam**, *Assistant Professor of Biology*; B.A., College of the Atlantic; Ph.D., Purdue University. 2007-

**David A. Kelly, O.S.B.**, *Director of Libraries; Assistant Professor of Political Science*; B.S., St. Joseph's University; M.A., Providence College; M.A., Georgetown University; J.C.B., J.C.L., St. Paul University; B.C.L., M.C.L., University of Ottawa; M.L.I.S., University of Pittsburgh. 1974-1979; 1984-1992; 1994-

**Timothy Kelly**, *Professor of History*; B.A., Rutgers University; M.A., University of Texas at Austin; Ph.D., Carnegie Mellon University. 1995-

**Gloria Kerr**, *Assistant Professor of English*; B.S., M.A., Ph.D., Indiana University of Pennsylvania. 2006-

**Jason E. King**, *Associate Professor of Theology*; B.A., Berea College; M.A., Ph.D., The Catholic University of America. 2005-

**Myron M. Kirsch, O.S.B.**, *Assistant Professor of Accounting*; Director of Athletics; B.A., Saint Vincent College; M.Div., Saint Vincent Seminary; M.B.A., Loyola University. 1977-

**Jennifer Schmidt Koehl**, *Associate Professor of Biology*; B.A., Lycoming College; M.S., Clarion University; Ph. D., Illinois State University. 2002-

**Rene M. Kollar, O.S.B.**, *Professor of History; Dean, School of Humanities and Fine Arts*; B.A., Saint Vincent College; M.Div., Saint Vincent Seminary; M.A., University of Maryland; Graduate Studies: Institute of Historical Research, University of London; Ph.D., University of Maryland; F.R. Hist. S., London. Fall semester, 1976, 1981-

**Taundra K. Krall**, *Instructor of Education*; B.S., M.S., California University of Pennsylvania. 2007-

- Michael P. Krom**, *Assistant Professor of Philosophy*; B.A., St. Mary's College (CA); M.A., Boston College; Ph.D., Emory University. 2007-
- Richard F. Kunkle, M.D.**, *Instructor of Management and Program Director of Management: OE*; University of Pittsburgh School of Medicine. 2008-
- George H. Leiner**, *Associate Professor of Philosophy and Liberal Arts*; B.A., Knox College; M.A., Ph.D., Purdue University. 1989-
- Sara Lindey**, *Assistant Professor of English*; B.J., B.A., University of Missouri; Ph.D., University of Minnesota. 2008-
- Olivia S. Long**, *Visiting Assistant Professor of Biology*; B.A. Carlow University; Ph.D. University of Pittsburgh. 2011
- Mohamed Anis Maize**, *Professor of Physics*; B.S., Cairo University; M.S., University of Louisville; Ph.D., Purdue University. 1990-
- Elliott C. Maloney, O.S.B.**, *Professor of Theology*; B.A., Saint Vincent College; S.T.L., Pontifical Athenaeum of Sant' Anselmo, Rome; Ph.D., Fordham University. 1977-
- Robert Markley**, *Latrobe Specialty Steel Company Sponsored Lecturer in Business Administration*; B.S., Pennsylvania State University; M.B.A., University of Chicago. 2007-
- Cynthia J. Martincic**, *Associate Professor of Computing and Information Science*; A.S., Community College of Allegheny County; B.S., University of Pittsburgh; M.S.I.S., Ph.D., University of Pittsburgh. 2001-
- Dennis D. McDaniel**, *Associate Professor of English*; B.A., Saint Vincent College; M.A., Ph.D., Duquesne University. 1998-
- Christopher McMahon**, *Associate Professor of Theology*; B.A., The University of Scranton; M.A., Saint Mary's Seminary and University; Ph.D., Catholic University of America. 2007-
- Robert J. Michalow**, *Instructor in Education and Environmental Science*; B.S., Saint Vincent College; M.S., (Environmental Science), Duquesne University; ABD, West Virginia University. 2004-
- Larry J. Mismas**, *Assistant Professor of Mathematics*; B.A., Saint Vincent College; M.A., Duquesne University; Graduate Studies, University of Pittsburgh. 1989-
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- Thomas Octave**, *Assistant Professor of Fine Arts*; B.F.A., Carnegie Mellon University; M.M., Duquesne University. 2008-
- Christopher Oldenburg**, *Associate Professor of Psychology*; B.A., University of Notre Dame; M.A., Ph.D., Kent State University. 2000-
- Gabriel S. Pellathy**, *Professor of Politics*; B.A., Columbia College of Columbia University; Ph.D., New York University; J.D., (LL.B.) Cornell University; LL.M., New York University; M.Sc. (Ed.), Hofstra University. 1978-
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- Mark G. Rivardo**, *Associate Professor of Psychology*; B.S., Saint Vincent College; M.A., Ph.D., Bowling Green State University. 1999-
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- Christina M. Safranski**, *Assistant Professor of Mathematics*; B.S., M.S., Ph.D., University of Notre Dame. 2009-
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- Michael Sierk**, *Assistant Professor of Chemistry (Bioinformatics)*; B.A., Rice University; Ph. D., University of Virginia. 2005-
- Kristine L. Slank**, *Associate Professor of Psychology*; B.A., Berea College; M.A., Ph.D., Virginia Polytechnic Institute and State University. 1991-
- John J. Smetanka**, *Assistant Professor of Physics*; B.S., Carnegie Mellon University; M.S., Ph.D., University of Chicago. 1997-
- William C. Snyder**, *Professor of English*; B.A., Saint Vincent College; M.A., Ph.D., West Virginia University. 1976-
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**Carla Zema**, *Assistant Professor of Economics*; B.S., Saint Vincent College; Ph.D. Johns Hopkins University. 2008-

**Huili Zheng**, *Assistant Professor of Modern and Classical Languages*; B.A., M.A., Nanjing University; M.A., University of Toronto; Ph.D., University of California, Irvine. 2011-

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**John F. Bleyer**, *Emeritus Professor of Education*; B.A., Pontifical College Josephinum; M.Ed., Ed.D., University of Pittsburgh; Graduate Studies: Millersville University of Pennsylvania; Post Graduate Studies: Duquesne University. 1974-

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**Charles G. Manoli**, *Emeritus Professor of History*; B.S., Saint Vincent College; Litt.M., University of Pittsburgh. 1962-

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Ms. Allison Andreas, Lecturer in Education  
Mr. Howard Armour, Lecturer in Health Sciences  
Dr. John Aupperle, Lecturer in Theology  
Mr. Richard Auman, Lecturer in Fine Arts  
Mr. Scott Avolio, Lecturer in Business Administration  
Mr. Richard Bane, Lecturer in Education  
Ms. Angela Belli, Lecturer in Sociology  
Ms. Beth Bollinger, Lecturer in Chemistry  
Ms. Katrina Boosel, Lecturer in Theology  
Ms. Donna Botsko, Lecturer in Mathematics  
Ms. Michele Boulet, Lecturer in Fine Arts  
Ms. Debra Bushey, Lecturer in Education  
Ms. Marisa Carlson, Lecturer in English  
Mr. John C. Caverno, Lecturer in Business Administration  
Mr. Steve Clark, Lecturer in Education  
Ms. Jacqueline Colland, Lecturer in Education  
Ms. Lara Lynn Cottrill-Nelson, Lecturer in Fine Arts  
Ms. Mary Crone, Lecturer in Education  
Fr. Bonaventure Curtis, O.S.B., Lecturer in Business Admin.  
Mr. Gabriel D'Abruzzo, Lecturer in Fine Arts  
Mr. Mike DeBroeck, Lecturer in Health Sciences  
Ms. Lea Delcoco-Fridley, Lecturer in English  
Dr. Lee Demosky, Lecturer in Politics  
Mr. Jay DiBernardo, Lecturer in Modern and Classical Lang.  
Dr. Cecilia Dickson, Lecturer in Politics  
Mr. William Doody, Lecturer in History  
Mr. Kenneth Dupre, Lecturer in Business Administration  
Ms. Samantha Fecich, Lecturer in Education  
Mr. Fred Findley, Lecturer in Communication  
Ms. Deborah Fischer, Lecturer in Educaiton  
Mr. Robert Fischer, Lecturer in Education  
Mr. Jeremy Frantz, Lecturer in Fine Arts  
Dr. Barry Fulks, Lecturer in History  
Ms. Jeanette Geary, Lecturer in Education  
Ms. Bobbi Watt Geer, Lecturer in History  
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Mr. George Glenn, Lecturer in Business Administration  
Dr. Benjamin Goodwin, Lecturer in Business Admin.  
Mr. Douglas Hagy, Lecturer in Business Administration  
Ms. Renee Hajdukiewicz, Lecturer in Education  
Mr. Timothy Hammill, Lecturer in Education  
Ms. Paula Hartman, Lecturer in Education  
Ms. Denise Hegemann, Lecturer in Liberal Arts  
Ms. Jennifer Howard, Lecturer in Business Administration  
Ms. Donna Hupe, Lecturer in Education  
Dr. Sacha Kathuria, Lecturer in Business Administration  
Mr. William Kimbro, Lecturer in Business Administration  
Dr. Theodore Kinney, Lecturer in Psychology  
Mr. Michael Koff, Lecturer in Business Administration  
Ms. Eva Kunkel, Lecturer in Business Administration  
Mr. James Kunkel, Lecturer in Business Administration  
Ms. Rachel Kurdziel, Lecturer in Mathematics  
Dr. Stacie A. Leffard, Lecturer in Psychology

Dr. Gene Leonard, Lecturer in Education  
Mr. Alex Litrun, Lecturer in English  
Mr. Brian Long, Lecturer in Business Administration  
Mr. John Malone, Lecturer in Business Administration  
Mr. Jerry Mansfield, Lecturer in Education  
Dr. James McBride, Lecturer in Business Administration  
Ms. Mary Beth McConahey, Lecturer in Politics  
Ms. Jennifer Miele, Lecturer in Business Administration  
Dr. Maureen Miller, Lecturer in Fine Arts  
Ms. Lisa Molinaro, Lecturer in Fine Arts  
Dr. Larry Montemurro, Lecturer in Psychology  
Ms. Joanna Moyar, Lecturer in History  
Ms. Mary Niemiec, Lecturer in Psychology  
Dr. Paul Niemiec, Lecturer in Psychology  
Mr. Richard Neish, Lecturer in Business Administration  
Mr. James Novak, Lecturer in Mathematics  
Dr. Gabriel Pellathy Jr., Lecturer in Politics  
Mr. James Pietrzak, Lecturer in English  
Ms. Josie Piller, Lecturer in Fine Arts  
Mr. Joseph Polka, Lecturer in Economics  
Ms. Dawn Posey, Lecturer in Fine Arts  
Dr. Sandy Reidmiller, Lecturer in Education  
Ms. Wanda Reynolds, Lecturer in Education  
Mr. Juan-Pedro Reyna, Lecturer in Modern and Classical Lang.  
Dr. Richard Saccone, Lecturer in Politics  
Mr. David Safin, Lecturer in Communication  
Mr. Alvin Sanfilippo, Lecturer in Education  
Dr. William Scheeren, Lecturer in Education  
Ms. Emily Scheinberg, Lecturer in Education  
Ms. Stephanie Selker, Lecturer in Communication  
Ms. Cynthia Shaffer, Lecturer in Education  
Fr. Thomas-More Sikora, O.S.B., Lecturer in Theology  
Ms. Peggy Smith, Lecturer in English  
Ms. Lisa Silko Spang, Lecturer in Fine Arts  
Mr. Daniel Stairs, Lecturer in Health Sciences  
Ms. Deborah Stock, Lecturer in Education  
Mr. Richard Stoner, Lecturer in Fine Arts  
Mr. Stephen Thimons, Lecturer in Business Administration  
Ms. Kathy Tobolewski, Lecturer in Education  
Ms. Theresa Torisky, Lecturer in English  
Ms. Diane Turnshek, Lecturer in Physics  
Mr. Richard Volpatti, Lecturer in Education  
Ms. Carrie Vottero, Lecturer in Education  
Mr. Martin West, Lecturer in Education  
Mr. Paul Whiteside, Lecturer in Mathematics  
Ms. Laura Wilkinson, Lecturer in Chemistry  
Mr. Thurman Wingrove, Lecturer in Business Administration  
Ms. Julia Wnek, Lecturer in Business Administration  
Mr. David Wygonik, Lecturer in Fine Arts

*\* Lecturers assigned to courses during the calendar year 2011, as of March 2011.*

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