

College of Liberal Arts and Sciences

College of Liberal Arts and Sciences

Rev. Kail C. Ellis, O.S.A., Ph.D., Dean
Robert DeVos, Ph.D., Associate Dean
John A. Doody, Ph.D., Associate Dean
Edwin L. Goff, Ph.D., Associate Dean
Catherine M. Hill, Ed. D., Associate Dean
Mario J. D'Ignazio, M.Ed., Assistant Dean
Office: 105 St. Augustine Center, tel. 610/519-4600
Website: www.artsci.villanova.edu/

*Set love as the criterion of all that you say, and whatever you teach,
teach in such a way that the person to whom you speak, by hearing
may believe, by believing hope, and by hoping love.*

THE INSTRUCTION OF BEGINNERS, St. Augustine

History

The College of Liberal Arts and Sciences of Villanova University was founded by the Augustinian Order in 1842. The College traces its origins to old St. Augustine's Church in Philadelphia, which the Augustinians founded in 1796, and to its parish school, St. Augustine's Academy, established in 1811.

In 1842, the Augustinians purchased "Belle Air", the country estate of John Rudolph, a Revolutionary War officer and Philadelphia merchant. There, they established the "Augustinian College of Villanova", under the patronage of St. Thomas of Villanova, a sixteenth-century Augustinian educator and Bishop of Valencia, Spain. Eventually the College came to be known as Villanova and gave its name to the town which grew up around it.

Classes for the new College began on September 18, 1843, when thirteen students embarked on a traditional liberal arts curriculum. At the outset, however, difficulties plagued the new College. The anti-Catholic "Know Nothing" riots in Philadelphia in 1844 resulted in the burning of St. Augustine's Church. The need to rebuild the church and maintain the new college created a financial crisis for the Order. As a result, the College closed its doors on February 20, 1845. It was able to reopen in September, 1846, with a student population of twenty-four, and the first commencement took place on July 21, 1847. The following year, on March 10, 1848, the Governor of Pennsylvania, Francis R. Shunk, signed the Act of Legislature incorporating the College.

In 1857, Villanova College closed for a second time. Demands on the services of priests through the expansion of parishes in the area created staffing problems for the Augustinians, while the Panic of 1857 brought on hard economic times. The onslaught of the Civil War in 1860 affected student enrollment and the College was not reopened until September, 1865. In the years that followed, the College prospered, increasing its student population and adding significantly to its physical facilities.

Although in the first fifty years of its existence, the College concentrated exclusively on the liberal arts, it nevertheless remained open to the changes in the curriculum which were required to meet the needs of the time and the demands for specialization. Responding to the demands of the medical profession for new requirements, for example, the College inaugurated its Sciences unit in 1915, and established as the standard premedical course, a four-year program leading to a Bachelor of Science degree in Biology.

Today, the College continues to offer a variety of educational programs which are aimed at the total growth of the individual, and which prepare students for viable careers. Graduates of the College have taken their place in almost every field of endeavor, serving in education, business, government, law, medicine and research, where they make vital contributions to the communities and the world in which they live.

Objectives

The College of Liberal Arts and Sciences exists to provide an atmosphere of responsible learning to a varied group of students who will be called to intellectual, moral, and professional leadership. To fulfill these goals, the College seeks to promote intellectual curiosity and rigor within the University, to instill the fundamentals of critical insight, mature judgment, and independent thinking in its students, and to awaken in its students a sense of the importance of values and the moral responsibility of caring for others and working for the betterment of society.

Villanova has always openly and proudly declared that it is a Catholic institution of higher learning. The University maintains a strong respect for the beliefs of its diverse community of faculty, students, and staff. In keeping with its central place in a Catholic University, the College of Liberal Arts and Sciences has a special commitment to the Christian belief that creation is an expression of divine truth through the redemptive life, death and resurrection of Jesus Christ, the incarnate Word of God. It also seeks to provide a Christian intellectual and moral environment and believes that it is the common right of all to participate in creation, to seek truth and to apply such truth attained to protect and enrich personal and communal life.

Villanova's special Augustinian heritage enables the College to draw upon the dynamic legacy of St. Augustine whose passionate pursuit of wisdom, understood through the metaphor of one heart and one mind, inspires its own quest for knowledge in open, intelligent, responsible and mutually respectful interaction of points of view. This legacy is classically illustrated by the Augustinian Order's impact on the medieval universities, its distinguished cultivation of Renaissance art, and its fostering of the scientific discoveries of Gregor Mendel. It is further expressed in the conviction that all authentic human wisdom is ultimately in harmony with Divine Wisdom, and it invites collaboration with other Christians and peoples of other traditions who might share at least the general features and dynamics of this Augustinian vision.

In light of this legacy, the College has developed a diversified academic program and a core curriculum which provide its students with a scale of well-defined universal

values that equips them to be wise critics of the society in which they live, and which sustains a moral base and social consciousness that transcends economic barriers and questions of race, gender, and creed.

Academic Mission

The academic mission of the College is intimately connected with its Curriculum. The courses in the Core Curriculum treat a broad range of disciplines from a variety of approaches; at the same time, the Core strives to ensure depth of study and intellectual sophistication while recognizing that learning implies different modes of inquiry. The objectives of the Core are to:

- ❑ Achieve a synthesis of knowledge that provides a basis for informed judgement, not simply fact finding.
- ❑ Promote literacy as a foundation for intelligent discourse and the articulation of informed views.
- ❑ Advance culture in a broad sense, educating students to understand and to appreciate the interrelated patterns of customary beliefs and practices, social forms, aesthetics, and material traits that act to define a culture and its position within a larger historical and intellectual framework. The educational program does not simply look to the past, but acknowledges that culture is vibrant and continuously redefined.
- ❑ Challenge students to understand that the present is recognizably formed from past influences and that in order to assess our culture and arrive at a view of its future, students must be trained to scrutinize and bring into perspective the relationship of the present culture with that of the past.
- ❑ Prepare students to become active participants within society, to engage in the process of informed political debate, to discover the impact of new technologies, and to encourage an understanding and appreciation of the diversity of cultures and experiences, a respect for the individual, and the development of a multicultural and international perspective.
- ❑ Encourage personal development in preparing students to regard themselves as citizens living in a democratic society, as belonging to a world community, and as therefore having communal responsibilities.

Mission to its Students Faculty and Staff

The College strongly adheres to the principles of the University Mission Statement which commits Villanova to "developing and sustaining an academic environment in which the potentialities of its members may be realized." In so doing, the College is guided by the teachings of Vatican II which emphasized that "the human spirit must be cultivated in such a way that there results a growth in its ability to wonder, to understand, to contemplate, to make personal judgments, and to develop a religious, moral, and social sense" (Pastoral Constitution on the Church in the Modern World, 59).

In order to fulfill its academic mission of transmitting, pursuing and discovering knowledge, the College commits itself to the hiring and retaining of outstanding teacher-scholars and dedicated staff personnel whose academic and professional interests will develop and foster the goals of the University's Mission Statement. In hiring faculty and staff personnel, the College further commits itself to the goal of maintaining a richness of

diversity by actively recruiting women and minorities. In all hiring strategies and decisions, the College strives to utilize procedures that will reliably determine the best qualified applicants.

While the College is committed to maintaining its Catholic identity, it does not seek a particular religious affiliation within its personnel. Rather, as formulated in the University's Mission Statement, it asks that all respect its "attempts to develop an environment in which students, faculty and staff may experience a Christian intellectual and moral perspective," and have a willingness to enter into the conversation that gives its mission life and character.

The College is strongly committed to academic freedom which makes open discussion and inquiry possible. It believes that open discussion among scholars and students is a self-correcting process that is intrinsic to academic freedom and that this process is in accord with responsible freedom, a central value of the Christian tradition, and of the thought of St. Augustine, himself the great theologian of Christian freedom.

The College seeks to encourage and equitably reward the valuable performance of its faculty and staff by offering competitive salaries and by making available opportunities which will enhance their professional development. It also seeks to promote a congenial work environment that is conducive to self-motivation. In recruiting students, the College will seek to ensure the best applicant pool possible. It will strive to retain students by offering excellent academic programs and by providing them with quality campus activities.

Degrees Offered

The College of Liberal Arts and Sciences offers the Bachelor of Arts degree in Art History, Humanities, Classical Studies, Communication, Criminal Justice, Economics, English, French, Italian, Liberal Arts, Geography, German, History, Honors Program, Human Services, Philosophy, Political Science, Psychology, Sociology, Spanish, and Theology and Religious Studies.

A Bachelor of Science degree is offered in Astronomy and Astrophysics, Biology, Chemistry, Comprehensive Science, Computer Science, Secondary Education, Honors Program, Information Science, Mathematics, and Physics. The chemistry program is accredited by the American Chemical Society and the computer science program is accredited by the Computer Science Accreditation Commission of the Computing Sciences Accreditation Board, a specialized accreditation body.

The requirements for degrees in these majors may be found under the departmental listings contained in this *Catalog*. Students must earn an overall 2.0 grade point average. See the section on Minors, Concentrations, and Certificates for additional information related to degree programs.

The College of Liberal Arts and Sciences also offers minors in most of the fields listed above. In addition the College offers minors, concentrations, or certificates in the following fields: Africana Studies, Arab and Islamic Studies, Cognitive Science, Criminal Justice, Environmental Studies, Education Elementary, Education Secondary, Ethics, Irish Studies, Latin American Studies, Military Science, Naval Science, Peace and Justice, Russian Area Studies, Women's Studies, and Writing and Rhetoric. The requirements for these programs are listed with the departmental programs.

Baccalaureate Degree Requirements

The requirements for a Bachelor of Arts or a Bachelor of Science degree are:

- ❑ A minimum of 40 courses of 3 credits or more and 2 labs (science degrees vary according to major), which includes the successful completion of the Core Curriculum (general core requirements and distribution requirements), an academic major, and electives.
- ❑ A minimum of 122 credits (science degrees vary according to major).
- ❑ A minimum grade point average (QPA) of 2.00.
- ❑ Residency requirement: the final 30 credits (senior year), at least half of all courses in one's major, and at least half of the courses required for the degree, must be taken at Villanova University. Students may complement their majors by taking one or more interdisciplinary concentrations, as described below in the section on "Minors, Concentrations, and Certificates."

The Core Curriculum

Objectives

The courses in the Core Curriculum treat a broad range of disciplines, using a variety of approaches and different modes of inquiry. At the same time, the Core strives to ensure depth of study and intellectual sophistication. The purpose of the Core is to achieve a synthesis of knowledge that provides a basis for informed judgement. The Core also seeks to promote literacy as a foundation for intelligent discourse and the articulation of informed views.

The Core aims to advance culture in a broad sense, training students to understand and to appreciate the interrelated patterns of customary beliefs and practices, social forms, aesthetics, and material traits that act to define a culture and its position within a larger historical and intellectual framework. This educational program does not simply look to the past, but acknowledges that culture is vibrant and continuously redefined. The Core challenges students to understand how the present is recognizably formed from past influences, and that in order to assess our culture and arrive at a view of its future, students must be trained to scrutinize and bring into perspective the relationship of the present culture with that of the past.

In fostering active participation in learning, the Core prepares students to become active participants within society, to engage in the process of informed political debate, and to encourage an understanding and appreciation of the diversity of cultures and experiences, a respect for the individual, and the development of a multi-cultural and international perspective. In this way the Core encourages personal development in preparing students to regard themselves as citizens living in a democratic society, as belonging to a world community, and as therefore having communal responsibilities.

Core Curriculum General Requirements

All candidates for a baccalaureate degree in the College of Liberal Arts and Sciences must complete the following requirements:

Core Humanities Seminar	2 courses	Mathematics	1 course
College Ethics	1 course	Mathematics/Computer Science	1 course
Fine Arts	1 course	Philosophy	2 courses
Foreign Language	2 courses	Theology and Religious Studies	2 courses
History	2 courses	Social Sciences	3 courses
Literature	2 courses	Natural Science (with lab)	2 courses

In general, once a sequence of courses is begun in a particular discipline, a student may not revert to a lower level course in that same discipline to fulfill a core requirement without prior approval from the Dean's Office. Courses or sections of courses that are approved to fulfill Core requirements are designated as such in the Pre-registration Master Schedule issued at pre-registration each semester. Retroactive approval of a course taken previously for fulfillment of a core requirement is not possible.

Core Humanities Seminar (2 courses): During the first year of study, each student must successfully complete CHS 1000 (Ancient, Medieval and Renaissance Thought) and CHS 1001 (Modern Thought: Enlightenment to the Present)

College Ethics (1 course): Each student (normally during the sophomore year) must successfully complete ETH 2050 (Ethical Traditions and Contemporary Life)

Fine Arts (1 course): Each student is required to take one semester of Fine Arts. Art History, Theatre, studio art courses which have a theoretical basis, and courses in music appreciation and film analysis are examples of courses which will fulfill this requirement. Consult the Master Schedule issued each semester at pre-registration for a list of courses that will fulfill this requirement.

Foreign Language (2 courses): In most cases, each student is required to complete at least two courses in the same foreign language at or above the intermediate level. For most students this requirement will involve a two-semester continuation of a language studied in high school. A student may elect to study a new language, which will entail completing two semesters of the language at the introductory level in addition to satisfying the intermediate level course requirement. In these cases, the two introductory level courses will be counted as electives if that language was not studied for two or more years at the high school level.

The language requirement may also be satisfied with two semesters of study at the introductory level for Arabic, Chinese, Ancient Greek, Japanese, or Russian.

International students (for whom English is a second language) may not choose their native language to fulfill the language requirement. Instead, they may take a total of four English courses (ENG 1050 and three literature courses at the 2100 level or above) to fulfill both the literature and foreign language core requirements. *NOTE: The credit value of language courses varies from three to six credits. Regardless of the number of credits, a language course counts for only one course.*

History (2 courses): Each student must successfully complete HIS 1040 or HIS 1050 and a second History course with a course number of 2000 or higher.

Literature (2 courses): Each student must successfully complete ENG 1050 and a second literature course with a course number of 2100 or higher chosen from the English

College of Liberal Arts and Sciences

departmental course offerings or a literature course offered by the Department of Classical and Modern Languages.

Mathematical Sciences/Computing Sciences (2 courses): Students may choose two courses in mathematical sciences (MAT) or one course in mathematical sciences and one course from computing sciences (CSC). All courses for which a student has the appropriate pre-requisites or equivalent experience may be used to satisfy this requirement. Beginning a course in a particular series does not obligate a student to finish that series. For example, a student taking MAT 1320 (Calculus I) is not required to take MAT 1325 (Calculus II). NOTE: *Students majoring in a science or those intending to apply to medical, dental or veterinary school must take two semesters of Calculus. Additional information is available from Dr. Friede, Health Sciences Adviser (610/519-4833). Students anticipating a Business Minor should take Introductory Statistics: Math 1230 and 1235.*

Philosophy (2 courses): Each student must successfully complete PHI 1050 and a second philosophy course with a course number of 2000 or higher.

Theology and Religious Studies (2 courses): Each student must successfully complete THL 1050 or THL 1051 and a second Theology and Religious Studies course with a course number of 2000 or higher.

Social Sciences (3 courses): Each student must successfully complete one introductory course in each of two distinct disciplines, and one advanced course (2000 level or above) in one of those two disciplines. The Social Sciences disciplines are: Economics, Geography, Political Science, Psychology, and Sociology.

Natural Sciences (2 courses with 2 labs): Each student must successfully complete, by the end of the sophomore year, two semesters of natural sciences with accompanying laboratories. Each student may choose Option A or Option B as described below:

Natural Sciences Option A: A year-long sequence (two courses with two labs) in one scientific discipline consisting of an introductory course followed by a theme course for which an introductory course is a prerequisite. These courses have been designed for non-science majors. The following sequences may be used to satisfy this option:

- AST 1050/1051 and AST 1052/1053.
- AST 1072/1073 and AST 1074/1075.
- BIO 1505 and BIO 1605, or 1625, or 1655, or 1705, or 1785. Offerings will vary from year to year.
- CHM 1050/1001 and 1054/1004 or CHM 1057/1007.
- ENV 1050 and ENV 1051
- PHY 1010/1011 and PHY 1012/1013.
- PHY 1020/1021 and PHY 1022/1023.

Natural Sciences Option B - A year-long sequence (two courses with labs) in one scientific discipline. These courses are generally taken by science majors. The following course sequences satisfy this option:

- AST 2121/2133 and AST 2122/2134.
- BIO 2105 and BIO 2106.
- CHM 1131/1103 and CHM 1134/1108.
- CHM 1151/1103 and CHM 1152/1104.
- PHY 2410/2411 and PHY 2412/2413.

Core Curriculum Distribution Requirements

In addition to satisfying the curricular requirements listed above, students are required to satisfy certain distribution requirements. The distribution requirements may be satisfied by courses used to satisfy either core, major or elective requirements. Additionally, a single course may satisfy more than one of the distribution requirements.

Writing Requirement (8 courses): Each student must take at least four courses which are designated as Writing Intensive and four courses which are designated as Writing Enriched. These designations will appear in the Master Schedule available during pre-registration each semester. (Students may also be expected to do extensive writing in courses which are not formally designated as writing enriched or writing intensive.)

The Core Humanities Seminars (1000 and 1001) and the Introductory Literature course (ENG 1050) fulfill three of the four Writing Intensive course requirements. The fourth Writing Intensive course requirement is to be taken in the student's major area. College Ethics (ETH 2050) fulfills one of the four Writing Enriched requirements.

Integrative Sequences (2 sequences of 2 courses each): Integrative courses enable a student to examine a topic or theme from the perspective of several disciplines. One of these sequences is to be in the humanities and the other is to be in the sciences. The two Core Humanities Seminars fulfill the former and the Natural Science core requirement fulfills the latter.

Diversity Requirement (2 courses): Each student is required to select one course in two of the following three areas:

- Diversity (1) - courses which provide a focus on studies emphasizing ethnic and minority experiences in the United States.
- Diversity (2) - courses which provide a focus on women's experiences and highlight the ways in which gender influences experience.
- Diversity (3) - courses which provide a focus on the culture, economics, politics or ecology of societies and nations other than those of Europe and the United States.

NOTE: 1.) A student may not use a single course to fulfill more than one category of the diversity requirement. 2.) The diversity requirement cannot be fulfilled by independent study or a senior thesis. 3) Language courses cannot fulfill the requirement, although literature courses in a foreign language can fulfill the requirement provided they focus on appropriate material.

Special Programs

Academic Seminars in Washington, D.C.

Villanova University in conjunction with the Washington Center sponsors intense two week academic seminars in the District of Columbia in January, May and August. Seminars do not interfere with the University calendar. Upon successful completion of the program, three elective credits are awarded the students. Program details are available in the Internship Office, 451 St. Augustine Center (610/519-4661).

Associate Degrees

Villanova University, through the College of Arts & Sciences, awards the Associate of Arts Degree and the Associate of Science Degree in Natural Science. The Associate Degree Program is designed for students who are not seeking a regular baccalaureate degree, but still wish to follow a specific curriculum. The Associate Program can be completed in half the time it normally takes to complete the baccalaureate program. Students completing the Associate Degree may continue directly toward the completion of the requirements for the baccalaureate degree without any loss of credit or time. Students associated with one of the Affiliation Programs may complete an Associate Degree based on work done at Villanova University.

Associate of Arts Degree

Arts courses (17 courses)

- College Ethics (ETH 1050)
- Core Humanities Seminar I & II (CHS 1000 and 1001)
- Fine Arts
- Intermediate Language I & II
- Introductory History (HIS 1040 or HIS 1050)
- Introductory Literature (ENG 1050)
- Introductory Philosophy (PHL 1050)
- Introductory Theology/Religious Studies (THL 1050 or THL 1051)
- Social Science Elective
- 6 additional courses in any department or program within the College of Arts or Sciences

Mathematics/Science courses (3 courses in at least two science disciplines, with at least one course with a laboratory segment)

Several courses in Mathematics are suitable, as well as any of several year-long Core Science sequences in Biology (and/or Human Anatomy and Physiology I & II), Chemistry, Computer Science, and Physics/Astronomy.

Sample Curriculum (many possibilities exist)

FIRST YEAR	
First Semester Introductory English Intermediate Language I Mathematics/Science Elective I Introductory Philosophy Core Humanities Seminar I	Second Semester Introductory History Intermediate Language II Mathematics/Science Elective II Introductory Religious Studies Core Humanities Seminar II
SECOND YEAR	
First Semester College Ethics Mathematics/Science Elective III Advanced Elective Advanced Elective Advanced Elective	Second Semester Fine Arts Social Science Elective Advanced Elective Advanced Elective Advanced Elective

Associate of Science Degree in Natural Science

Arts courses (7 courses)

- Core Humanities Seminar I
- Introductory History (HIS 1040 or HIS 1050)
- Introductory Literature (ENG 1050)
- Introductory Philosophy (PHL 1050)
- College Ethics (ETH 1050) or Ethics of Health Care
- Introductory Theology/Religious Studies (THL 1050 or THL 1051)
- Social Science Elective

Mathematics/Science courses (9 courses and associated laboratories in at least two departments). Any science course appropriate for a major in any science department will count. Suitable courses include year-long sequences in Astronomy (AST), Biology (BIO; including Human Anatomy and Physiology I & II), Chemistry (CHM), Computer Science (CSC), Mathematics (MAT), or Physics (PHY). At least two courses must be in Mathematics/Computer Science*.

* Students in Affiliation Programs typically will take at least one semester of Calculus (e.g., MAT 1310 and one semester of Statistics (MAT 1230)

Electives (3 courses) Any course taken from any department or program within the College of Arts and Sciences.

Sample Curriculum (many possibilities exist; the schedule and the specific science courses listed represent only one possible scenario)

FIRST YEAR	
First Semester Core Humanities Seminar I Mathematics Elective I Biology 2105 Chemistry 1151/1103	Second Semester Mathematics Elective II Biology 2106 Chemistry 1152/1104 Introductory Religious Studies Introductory Philosophy
SECOND YEAR	
First Semester Science Elective College Ethics Introductory English Social Science Elective PHY 1100/1101	Second Semester Introductory History Elective Elective Elective PHY 1102/1103

Associate Degree programs designed for the special requirements of physical therapy, occupational therapy, cytotechnology, medical technology, dental hygiene, and diagnostic imaging/multi competency are also available. Interested students should contact the College of Liberal Arts and Sciences.

Students wishing to continue for a baccalaureate degree need to take the required courses as stated in the current catalogue for the major into which they enroll.

Business Minor Program

Students in Liberal Arts and Sciences may take courses leading to a business minor. Information on the business minor is available from the College of Commerce and Finance, and the program is described in more detail in the Commerce and Finance section of this *Catalog*. *NOTE: Students in the Business Minor are required to purchase a notebook computer, approved by the College of Commerce and Finance (call 610/519-4334 for more information).*

Elementary Education Certification -- Rosemont College

Villanova, in cooperation with neighboring Rosemont College, offers students a program leading to a Pennsylvania-approved program in elementary education certification. Students planning to teach are admitted to the teacher certification program in the sophomore year after interviews and scholastic averages indicate they have the acceptable qualifications. A Villanova student may be recommended for certification in elementary education by Rosemont College by satisfactorily completing (1) all major and core requirements of Villanova University, (2) the professional education requirements of Rosemont College, and (3) the necessary psychology and education courses at Villanova.

Interested students must make application to the Office of the Dean through the Director of Liberal Arts, St. Augustine Center, room 451, in the fall semester of their sophomore year and must have achieved a cumulative grade point average of 3.00. An interview with the Director of the Education Program at Rosemont College is required. A limited number of students may be accommodated in this program. Students should arrange their own transportation.

Students in the Elementary Education Program are required to complete professional courses, and student teaching during the first semester of the senior year. To be eligible for the student teaching experience, students must fulfill the following requirements:

- A cumulative grade point average 3.00 with a minimum grade of B- in each required professional course.
- A cumulative grade point average of 3.00 in the student's major and a recommendation from the Villanova department chairperson.
- Doctor's certification of physical and mental health.

Secondary Education Program and Teacher Certification

Villanova University's secondary teacher education program is approved by the Pennsylvania Department of Education as satisfying the requirements for teacher certification in twelve subject areas. Students who are enrolled in the Bachelor of Science in Education program are also enrolled in the teacher education program. Upon successful completion of the degree and the National Teachers Examination

(NTE/Praxis) in communication skills, general knowledge, professional knowledge and subject specialization, the student is eligible for certification.

Students in other departments may be admitted to the teacher education program upon the approval of the Undergraduate Committee. Students admitted to the teacher education program must complete the same requirements as the candidate for the Bachelor of Science in Education, including student teaching.

With the exception of Education 4220, 4281, 4282, 4283, 4284, 4285, 4286, 4291 and 4292, Education courses may be taken as electives by students in other departments of the University.

Students enrolled in the Teacher Education Program will have their work reviewed each semester by a department committee to determine progress and professional development for certification. Students must achieve a 3.0 cumulative average in their teaching specialty and a 3.0 overall before they are permitted to do student teaching. Students who do not achieve the required cumulative average by senior year will not be allowed to continue in the major

All Education majors will select a Content Area in which to be certified; they are also encouraged to earn a second major in the Content Area. The specific courses in the Content Area are determined by the Department and the subject area department. Student Teaching is normally taken in the second semester of the senior year.

The core curriculum for Education majors differs in some respects from the normal Arts and Sciences core and interested students should contact the Department of Education and Human Services. Students who possess a bachelor's degree and want to pursue Teacher Certification on a part-time or full-time basis should apply through the Department of Education and Human Services.

Exchange Programs

Villanova University enjoys cooperative exchange arrangements with neighboring Rosemont College and nearby Gratz College, allowing Villanova students the opportunity to take classes at the other schools. Students who participate in the exchange program must possess a cumulative average of 2.75. Superior juniors and seniors in the College of Liberal Arts and Sciences may take courses at Bryn Mawr College on a limited basis. Courses taken at Bryn Mawr must be in the student's field of study and not offered at Villanova. Registration is through the Honors Program Office, St. Augustine Center, Room 103 (610/519-4650).

Honors Program

The Honors Program is designed to bring together superior students and dedicated faculty in a small college environment of rigorous seminars, flexible requirements, and independent research in order to promote breadth, diversity, and depth throughout the students' academic careers. The Program is open to students in all undergraduate colleges with the approval of the Honors Director. The Program offers the Bachelor of Arts and Bachelor of Science degrees. To qualify for an Honors Program degree, the student must be a full-time participant in the Honors Program, must complete a specified sequence of courses, and must maintain a 3.33 QPA with periodic evaluation and approval by the Honors teaching staff. For students whose course of studies prevents them from pursuing an Honors Program degree, an Honors sequence in Liberal Studies is available, which requires a minimum of eight Honors courses, a 3.33 QPA, and periodic evaluation and approval by the Honors teaching staff. Program details can be found in

College of Liberal Arts and Sciences

the "Honors Program" section of this *Catalog* and are available in the Honors Program Office, 103 St. Augustine Center (610/519-4650).

Human Services Program

The Bachelor of Arts in Human Services is designed for the student who chooses a liberal arts degree combined with an opportunity to pursue an experiential component geared toward the human services area. The program is for those who want to combine a liberal arts education with expertise in basic communication skills, human resource development, and knowledge of the professional field and are interested in the fields of business. The practicum experience gives the student the opportunity to work in an agency setting pertinent to the chosen specialization. Upon completion of the degree requirements, students will have minors in Psychology and Sociology. The program also prepares the student to pursue graduate level courses in Counseling and Human Relations.

International Studies

The College of Liberal Arts and Sciences strongly encourages all majors in the College to consider studying overseas in a foreign university for a summer, a semester, or for a year during the sophomore or junior years at Villanova. Villanova has its own six-week overseas summer programs in Chile, France, Ireland, Italy, Palestine, and Spain open to all Villanova students for intensive language or area studies. Students may study subjects in their major, minor or concentrations, strengthen their modern language skills, or complete Core course requirements through Overseas Programs. In any case, students normally enhance past skills such as high school languages learned but no longer studied due to heavy course requirements at Villanova, work towards a career path through overseas internships, gain fluency in language currently being studied, or begin learning a language. Interested students should see the detailed discussion of International Studies in the Villanova University section of this *Catalog* or contact the Office of International Studies, Middleton Hall, second floor, (phone 610/519-6412).

Internships

The College of Liberal Arts and Sciences provides its students with the opportunity to earn course credit in departmentally related and academically creditable internships. Internships for academic credit must be directly related to a student's major, minor, or concentration. Internships are not restricted to the Delaware Valley, and might take place in Washington, DC, as well as other parts of the country. Qualified juniors and seniors with a 3.0 QPA are eligible to participate in the program. Internships last for the semester and can be either full-time or part-time. They are also available during the summer sessions. Program details are available from the Internship Director, St. Augustine Center, Room 451 (610/519-4661).

Naval Science

Eligibility for a commission in the U.S. Navy, Naval Reserve, U.S. Marine Corps or Marine Corps Reserve, through the NROTC Program, is contingent upon successful

completion of required University and naval professional courses of study. Program details are found in the Naval Science course listings section of this *Catalog*.

Academic Policies and Information

Unless otherwise noted, the College of Liberal Arts and Sciences follows the general academic policies and regulations listed in the University section of this *Catalog*. *It is the responsibility of the student to know and comply with all academic policies and regulations of the University and of the College of Liberal Arts and Sciences.* Such policies may change without prior notice. Policies specific to the College of Liberal Arts and Sciences follow, and can be seen in greater detail in *Enchiridion: The Undergraduate Handbook*:

Academic Standing and Academic Probation

The College Academic Standing Committees meet at the end of each regular semester to review the academic records of any student in the College who is on academic probation or experiencing academic difficulties. The Committee recommends corrective actions to the Dean that may range from Letters of Concern to Probation to a Dismissal From the College. Each student deserving corrective action will receive a letter from the Dean's office stating the action taken. While on academic probation, a student's course load may be limited to four courses plus any associated laboratories, and the student may not participate in any extracurricular activities. Students may be removed from the Academic Probation List only upon satisfying each of the requirements of the term of probation.

There is no requirement that a student must receive a Letter of Concern or Probation prior to being dismissed from the College of Liberal Arts and Sciences, and possibly from the University. A dismissal from the College may be appealed in writing. Detailed instructions accompany each letter from the Dean.

Advising

Every student in the College of Liberal Arts and Sciences is assigned an academic adviser. Before declaring a major, each student is assigned to a specially trained faculty member who serves as the student's pre-major adviser. After declaration of major, advising is done by faculty in the student's major department.

Closed Sections

Ordinarily, students will not be permitted to enroll in closed sections. Exceptions to this rule can be made only by the appropriate chairperson and only when a student graduating at the end of the current semester must enroll in the specific section in order to complete his or her primary major. If other sections or other courses are available to satisfy the degree requirements, the exception will not be granted.

Dean's List

At the end of each academic year, the College of Liberal Arts and Sciences officially recognizes its best students by including their names on the Dean's List. Inclusion on the list is a tribute to a student's diligent work and superior academic performance. In an effort to retain the honor which is integral to membership on the list, the requirements for inclusion are justifiably rigorous.

In order to be named to the Dean's list, a student in the College of Liberal Arts and Sciences must maintain a minimum semester grade point average of 3.50 at the close of the academic semester. All students included on the list will receive a congratulatory letter from the Dean following the conclusion of the spring semester.

Graduate Courses

A qualified Senior with a cumulative QPA of 3.0 may enroll in a graduate course upon obtaining the written approval of the adviser, the department chairperson of the course involved, and the Dean before submitting the request to the Dean of the Graduate School.

Courses numbered 7000-7999 are graduate courses open to qualified undergraduates. Courses numbered 8000-9999 are graduate courses not ordinarily open to undergraduates.

Medallion of Excellence

Each department in the College of Liberal Arts and Sciences may nominate one graduating senior each year to receive a Medallion of Excellence. Generally, to be eligible for nomination, students must have earned a minimum of three-fourths of their degree at Villanova in the College of Liberal Arts and Sciences and must have a minimum cumulative grade point average of 3.50.

Each department has named its medallion either for a luminary from the past who has deeply affected the discipline or an outstanding person who helped to shape the course of study at Villanova University.

Phi Beta Kappa

Phi Beta Kappa is a National Honors Fraternity for Colleges of Liberal Arts and Sciences. It was founded at the College of William and Mary in 1776. Since that time, its rigorous and comprehensive standards have made election to it a premier sign of excellence. Villanova University became one of the colleges and universities to shelter a chapter when the Sigma of Pennsylvania Chapter of Phi Beta Kappa was installed at Villanova in April 1986. The Phi Beta Kappa standards reflect the highest ideals of liberal education at Villanova: education that is concerned with values as well as facts, and wisdom as well as knowledge; education that seeks freedom from ignorance, alienation, and inhumanity; that values intellectual integrity and tolerance over expediency, and breadth of scholarly achievement over specialized expertise.

Juniors and seniors who are candidates for a degree in the College of Liberal Arts and Sciences, whose academic achievements reflect the goals of Phi Beta Kappa, and

who meet the following specific criteria shall be eligible for consideration for election to Phi Beta Kappa:

- Candidates must have completed three semesters of work in the College of Liberal Arts and Sciences and be fully registered for a fourth.
- Candidates must have a grade point average of at least 3.50 (3.80 to be elected as a junior).
- At least three-fourths of a candidate's academic work must have been taken in the liberal arts and sciences, as distinct from applied or professional work.

In choosing candidates for election, the Chapter seeks evidence of academic achievement that is of exceptional distinction, and gives weight to the breadth and the quality of the overall program of courses taken by each candidate.

Election to membership in Phi Beta Kappa is wholly within the discretion of the members of the Chapter, subject only to the limitations imposed by its Constitution and By-Laws. Fulfillment of the minimum qualifications does not assure election to the membership.

Pre-Professional Health Related Science

Adviser (Dr. John Friede). The Health Related Science Adviser:

- Provides information to prospective students and their parents regarding Villanova University's programs in the sciences and how Villanova University can prepare them for careers in health related professions;
- Provides information to matriculated students on professional schools and their application processes;
- Prepares the evaluation materials for each Villanova student applying to a professional school in the health sciences; and
- Serves as the academic adviser for students accepted into the affiliation programs.

Additional information is available from the Health Science Adviser in 151 Mendel Science Center (610/519-4833) or from the Office of the College of Liberal Arts and Sciences.

Satisfactory/Unsatisfactory Option

Sophomores, Juniors, and Seniors may take one elective course a semester on a satisfactory/unsatisfactory basis. The satisfactory/unsatisfactory option may not be used for courses that fulfill core, major or minor requirements, but individual departments may offer the major seminar on a satisfactory/unsatisfactory basis.

Scholastic Load

A student must take a minimum of 12 credits a semester to be a full-time student. A normal scholastic load (usually five courses plus labs) is defined by the program of studies set forth in this *Catalog*. Permission to take one other course in excess of the normal load may be obtained with the written approval of the Dean.

In order to qualify for such approval in the College of Liberal Arts and Sciences, a student must demonstrate academic proficiency of a high order as indicated by a 3.5 cumulative average.

Summer School at Villanova

In order to accommodate students wishing to accelerate or enrich their studies, Villanova offers three summer sessions. Courses taken in Villanova Summer School are treated as though they were taken during the year. Prior to enrollment in Villanova Summer School, students in the College of Liberal Arts and Sciences must secure an adviser's signature. A student may take at most five courses in the summer; with at most two courses in SS I and at most two courses in SS II.

Summer School at Other Institutions

Students in the College of Liberal Arts and Sciences may be permitted to take summer school courses at institutions other than Villanova University. In all cases permission to enroll in such courses must be obtained from the student's adviser and from the Dean's Office before enrolling in the course(s).

Courses will generally be approved if they are taken at accredited four year colleges or universities and if they are equivalent to course offerings at Villanova. Upon completion of the course it is the student's responsibility to see that an official, sealed transcript is sent to the College of Liberal Arts and Sciences at Villanova.

Transfer credit will be awarded on the Villanova transcript only for pre-approved courses in which a student earns a grade of "C" or better. The actual grade received at the other institution does not transfer and is not calculated into the student's cumulative grade point average.

Withdraw from a Course

After the Friday following mid-term break, and up to and including the last day of the semester, students may withdraw from a course without academic penalty and receive the grade of "WX" only by permission of the Dean of the College. Students may request an authorized withdrawal by providing to the Dean a written statement of justifiable cause for withdrawal as well as the written recommendation of the instructor and the student's chairperson. Justifiable cause is a reason such as illness which is extrinsic to the nature or difficulty of a course and which would prevent a student from completing the substantial requirements of the course. The proper form for this procedure may be obtained in the Dean's Office, 105 St. Augustine Center.

Sample Degree Programs

The following chart offers a sample program for students with majors in Liberal Arts. It is just one of the many possible arrangements students may choose in pursuing a degree. Students are required to meet with an assigned adviser at least once each semester in order to select courses for registration. While a student may decide to alter the following course order, no courses may be omitted. It is exclusively the responsibility of the student to see that the appropriate courses are selected in the pursuit of any of the various degrees in the College.

SAMPLE CURRICULUM FOR AN ARTS MAJOR PROGRAM

FIRST YEAR	
<i>Fall Semester</i>	<i>Spring Semester</i>
Core Humanities Seminar*	Core Humanities Seminar*
Introductory Philosophy	Introductory Literature
Social Science	Introductory History
Language	Language
Mathematical/Computing Sciences	Mathematical/Computing Sciences
SECOND YEAR	
<i>Fall Semester</i>	<i>Spring Semester</i>
Natural Science & Laboratory*	Natural Science & Laboratory*
Fine Arts	College Ethics
Introductory Theology	Social Science
Elective/Major/Social Science	Elective/Major/Social Science
Adv. Humanities (History/Philos)	Adv. Humanities (Theol/Literature)
THIRD YEAR	
<i>Fall Semester</i>	<i>Spring Semester</i>
Major	Major
Major	Major
Advanced Humanities	Advanced Humanities
Elective	Elective
Elective	Elective
FOURTH YEAR	
<i>Fall Semester</i>	<i>Spring Semester</i>
Major	Major
Major	Major
Elective	Elective
Elective	Elective
Elective	Elective

*NOTE: These courses must be taken in the semester indicated.

Sample Curriculum for a Sciences Major Program

The following chart offers a sample program for students with majors in the Sciences. Students are required to meet with an assigned adviser at least once each semester in order to select courses for registration. While a student may decide to alter the following course order, no courses may be omitted. It is exclusively the responsibility of the student to see that the appropriate courses are selected in the pursuit of any of the various degrees in the College.

FIRST YEAR	
<i>Fall Semester</i>	<i>Spring Semester</i>
Core Humanities Seminar*	Core Humanities Seminar*
Major Science	Major Science
Science or Core	Science or Core Requirement
Mathematics	Mathematics
Foreign Language	Foreign Language

College of Liberal Arts and Sciences

SECOND YEAR	
<i>Fall Semester</i>	<i>Spring Semester</i>
Major Science	Major Science
Major Science	Major Science
Math or Core	Math or Core
Science or Core	Science or Core
Introductory Literature	Core Elective
THIRD YEAR	
<i>Fall Semester</i>	<i>Spring Semester</i>
Major Science	Major Science
Major Science	Major Science
Science or Core	Science or Core Requirement
Advanced Humanities	Advanced Humanities
Elective	Elective
FOURTH YEAR	
<i>Fall Semester</i>	<i>Spring Semester</i>
Major Science	Major Science
Major Science	Major Science
Science or Core	Science or Core Requirement
Advanced Humanities	Advanced Humanities
Elective	Elective

**NOTE: These courses must be taken in the semester indicated.*

Students wishing to receive the Bachelor of Science in Astronomy and Astrophysics, Biology, Chemistry, Computer Science, Mathematics, Physics or the Bachelor of Science Comprehensive Program must attain a QPA of 2.00 in the science and mathematics courses taken in fulfillment of their major, as well as attaining an overall QPA of 2.00.

Departments and Programs

Aerospace Studies

Faculty: Hopkins, Alzate, Boyd, Sutton
Website: www.csc.vill.edu/~afrotc/index.htm

Air Force Reserve Officer Training Corps participation is available through a cross-enrollment agreement with St. Joseph's University. Participation in a one through four-year program leads to a commission as a Second Lieutenant in the Air Force. Scholarships are available in any major. Contact AFROTC Detachment 750 at (215) 871-8324 for further details.

Africana Studies Program

Director: Dr. Maghan Keita
Office: 448 St. Augustine Center, tel. 610/519-4661
Website: www.artsci.villanova.edu/africanastudies/

CONCENTRATION: The Africana Studies program combines an introductory core with a number of electives. Concentrators are required to take two courses (six credits) from the introductory core. Each of these courses must be from a different discipline. In addition the student is required to take fifteen credit hours of approved electives. The list of approved electives available in any given semester is available from the Africana Studies Office, St. Augustine 451.

MINOR: For the Africana Studies minor, a student is required to take two courses (six credit hours) from the introductory core. Each of these courses must be from a different discipline. In addition the student is required to take nine credit hours of approved electives.

Introductory Core:

COM 2700	Black Rhetoric
ENG 2505	African American Literature: Poetry
ENG 2510	African American Literature: Novel
ENG 2515	African American Literature: Drama
HIS 2291	African American History during Slavery
HIS 2292	African American History since Slavery
HIS 4115	The Roots of African Culture
HIS 4120	The Emergence of Modern Africa

Sample
Electives:

College of Liberal Arts and Sciences

ECO 1103	The Economics of Social Issues
GEO 3700	Africa
HIS 4130	Southern Africa in Historical Perspective
HIS 4470	Third World Revolution
HIS 4490	Topics: Racism and Justice in the Americas
HON 4050	Africana Intellectualism
HON 5700	Urban Realities/Suburban Perspectives
HON 5702	Philosophy, Issues of Race
P J 5000	Race/Class/Gender
PSC 3500	Civil Rights and Civil Liberties
PSC 4700	Africa
PSC 5500	Africa in World Politics
THL 5700	Black Religious Experience
SOC 3600	Race Relations and Ethnic Relations

The number of electives, and therefore students' choices, will vary from year to year.

Arab and Islamic Studies

Director :	Dr. Mine Ener
Office:	104 St. Augustine Center, tel. 610/519-7325
Website:	www.artsci.villanova.edu/arabislamic/

CONCENTRATION: AIS 4100; ARB 1111, 1112, 1121, 1122; HIS 4031, 4041; PSC 4900 or 5900; THL 5150; and one elective from the courses listed below.

MINOR: ARB 1111, 1112; HIS 4041; PSC 4900 or 5900; and two electives. *NOTE:* Students are advised to enter the program no later than the first semester of their junior year in order to complete the requirements. Approval of the program director must be obtained to enter the program. The Center for Arab and Islamic Studies is located in 104 St. Augustine Center (610/519-7712 or 7325).

Army ROTC

Faculty:	Lieutenant Colonel Latsha, Major Keim, Captain Karbel, Captain Limmer, Master Sergeant Pearson, Staff Sergeant Ortega
-----------------	---

ARMY ROTC PROGRAM: By agreement with Widener University's Department of Military Science, Villanova offers a program of study leading to a commission as a Second Lieutenant in the United States Army or Army Reserve. Details are found in the general University section of this *Catalog*

Art History

Chair:	Dr. Adele Lindenmeyr
Office:	403 St. Augustine Center, tel. 610/519-4660
Website:	www.history.villanova.edu/arthistory/
Course descriptions:	www.artsci.villanova.edu/courses/art_history.html

The Art History major and minor are administered by the Chair of the History Department.

MAJOR: Art History majors must complete AAH 1101 and AAH 1102 (History of Western Art, Ancient to Medieval and Renaissance to Contemporary World) plus one Studio Art Course and seven upper-level art history courses. These seven upper-level courses must include one course in each of the four general areas of art history (Ancient, Medieval, Renaissance, Modern); an art history elective; a Senior Seminar (4000-level course); and a Senior Thesis. Majors in Art History have the opportunity to do internships at nearby museums, auction houses, or historical sites; or to participate in the Villanova-Rosemont Summer Program in Siena, Italy, which places a strong emphasis on art history.

MINOR: Students seeking a minor in Art History are required to earn at least 15 credit hours in art history, six of which must be the two survey courses (AAH 1101 and 1102), plus 3 credit hours in Studio Art.

Astronomy and Astrophysics

Chair:	Dr. George P. McCook
Office:	457 Mendel, tel. 610/519-4820
Professors:	Guinan, McCook, Sion
Associate Professors:	Maloney, Fitzpatrick
Assistant Professor:	Ambruster
Instructor:	DeWarf
Website:	www.astronomy.villanova.edu
Course descriptions:	www.artsci.villanova.edu/courses/astronomy.html

MAJOR: AST 2120, 2121, 2122, 2133, 2134, 3141, 3142, 3152, 3162, 4121,4122; MET 2001; CSC 4630; MAT 1500, 1505,2500, 2705; PHY 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2601, 2603, 4100, 4200, and 3 Physics courses (9-12 credits) numbered above 3000. Recommended are PHY 4000, 5100, 5200.

MINOR: MINOR: 22 credits, including AST 2120, 2121, 2122, 2133, 2134, and three (3) of the following: AST 3141, 3142, 3152, 3162, 4121, 4122; MET 2001. NOTE: prerequisites in Math and Physics must be met to gain admission to these courses.

Biology

Chair:	Dr. Russell M. Gardner
Professors:	Bauer, Desmond, Gardner, Maksymowych (Emeritus), Orkwiszewski, Stephens, Wieder
Associate Professors:	Curry, Dollahon, Olson, Knepper, Russell, Webb
Assistant Professors:	Balsamo, DiBenedetto, Friede, Russo
Instructor:	Chubb
Office:	152 Mendel, tel. 610/519-4830
Website:	www.bio.villanova.edu
Course descriptions:	www.artsci.villanova.edu/courses/biology.html

MAJOR: Thirty-six credits in Biology, including BIO 2105, 2106, 3351, and 5100. Cognate requirements include: CHM 1151/1103, 1152/1104, 2211/2201, 2212/2202; MAT 1310/1315; PHY 1100/1101 and 1102/1103. In addition, Biology majors must select a minimum of five laboratory science electives from the Biology departmental offerings (five courses including laboratories) numbered 3000 and higher. At least one course with laboratory must be chosen from each of the following areas: Population Biology, Organismal Biology, Cellular/Molecular Biology. *NOTE: Courses numbered below 2000 will not apply toward a major in biology.*

MINOR: Twenty-three credits Biology, including BIO 2105 and 2106. Additional elective courses from Biology departmental offerings numbered 3000 and higher. These Biology electives must include at least 3 lab science courses. Minors must complete at least 12 of their Biology credits at Villanova and achieve a minimum QPA of 2.0 in those courses.

NOTE: Courses numbered 7000 to 7999 are open to undergraduates with advanced standing and a QPA of 3.0 or higher. See the Biology listings in the Graduate School of Liberal Arts and Sciences Catalog.

Chemistry

Chair:	Dr. Barry S. Selinsky
Professors:	Giuliano, Wójcik
Associate Professors:	Bessel, Ludwig, Selinsky, Spritzer
Assistant Professors:	Ahmadi, Bausch, Casillas, Kassel, Ohta, Rucker, Zubris
Office:	215 Mendel Hall, tel. (610) 519-4840
Website:	www.chemistry.villanova.edu
Course descriptions:	www.artsci.villanova.edu/courses/chemistry.html

MAJOR: CHM 1000; 1311/1301; 1512/1502; 3511/3501; 3211/3201; 3212/3202; 3311/3301; 3411/3403; 3412/3404; 4611; MAT 1500/1505; PHY 2410/2411; 2412/2413. In addition, Chemistry majors must select a minimum of two Chemistry electives and one Chemistry lab elective.

MINOR: CHM 1151/1103; 1152/1104; 2211/2201; 2212/2202. In addition, Chemistry minors must select a minimum of three courses (along with appropriate laboratories) from any 3000 level course or higher.

BIOCHEMISTRY CONCENTRATION: The curriculum is identical to the Chemistry major except for the following: CHM 4611 and one Chemistry elective are replaced by CHM 4621/4622/4603. Three semesters of Biology are required: BIO 2105; 2106; and a molecular based biology course.

RESEARCH OPPORTUNITIES: The Chemistry Department offers two mechanisms for participation in research by the undergraduate major. Departmental fellowships for 8-10 weeks of summer research are funded by industrial and government sources. Recipients of these fellowships carry out a research project under the direction of a faculty member. In addition, students are encouraged to enroll in research for academic credit during the school year (CHM 4801, 4802, 4803).

Classical and Modern Languages and Literature

Chair:	Dr. Silvia Nagy-Zekmi
Professors:	Helmetag, Hunt, Juliá, Nagy-Zekmi, Ogden
Associate Professors:	Omran, Pastore, Peraita, Poeta, Rigaud, Trujillo
Assistant Professors:	Chi, Hamada, Jaworowski, Nakagawa, Waggaman
Office:	303 St. Augustine Center, 610/519-4680
Website:	www.classicalmodernlanglit.villanova.edu/
Course descriptions:	www.artsci.villanova.edu/courses/languages.html

MAJORS: Majors in French, German, Italian, or Spanish are required to take ten courses above the intermediate level. Once a sequence of language courses has begun, a student may not revert to a lower level course. French 2144 is required of all majors in French; Italian 3211 and 3212 are required of all majors in Italian; Spanish 2211 and 2212 are required of all majors in Spanish. In addition, majors in French, German, Italian, and Spanish are required to take a research seminar: French 3950, German 3950, Italian 3950, or Spanish 3950. A major in Classical Studies generally requires a minimum of 12 courses (minimum 36 credits) in Latin or Greek. Up to 2 Classics courses (taught in English: Archaeology, Mythology, etc.) may be included in the 12 course total. Classics 3001, Independent Study, will be considered a Latin or Greek course when the study is done in those languages.

MINORS: Students may minor in Arabic, Chinese, French, German, Italian, Japanese, Russian or Spanish. Minors in Arabic, Chinese, Japanese, and Russian must complete six courses in the language. For Minors in French, German, Italian and Spanish four courses above the intermediate level are required. A minor in Classical Studies generally requires a minimum of 6 courses (minimum 18 credits) in Latin or Greek. Up to 2 Classics courses (taught in English: Archaeology, Mythology, etc.) may be included in the 6 course total. Classics 3001, Independent Study, will be considered a Latin or Greek course when the study is done in these languages.

The Department also offers courses in foreign literatures in English translation. Such courses may be used to fulfill a Humanities elective or the core requirement for advanced literature; however, they may not be used toward credit requirements for a foreign language major or minor.

Students may obtain up to six credits through Villanova summer programs abroad in France, Chile, Germany, Italy and Spain.

Cognitive Science Program

Director : Dr. Charles L. Folk
Office: 252 Tolentine Hall, 610/519-5432
Website: www.artsci.villanova.edu/cogscience/

Cognitive Science is a basic and applied science with the primary goal of explaining intelligent behavior, whether exhibited by humans, animals, or machines. The purpose of the Cognitive Science Program is to offer an interdisciplinary course of study related to intelligent systems emphasizing the perspectives of psychology, computer science, philosophy, and biology. The program offers both a concentration and a minor to students in all of the University's undergraduate colleges.

Requirements for Concentration: All five courses from Categories A and B. At least two additional courses from Category C.

Requirements for Minor: Two of the three courses in Category A At least three additional courses selected from Categories A, B, or C. *Note:* Course selections for the minor must include approved courses in three of the following four disciplines: Psychology (PSY), Computer Science (CSC), Philosophy (PHI), and Biology (BIO).

Category A:

PHI 4650 Philosophy of Mind
PSY 4500 Cognitive Psychology
CSC 4500 Introduction to Artificial Intelligence

Category B:

CSC 1051 Algorithms and Data Structures I
CGS 5900 Cognitive Science Seminar

Category C:

BIO 4605 Neurobiology
BIO 6509 Directed Research (with Cognitive Science Program approval)
BIO 7921 Sensory Biology
CSC 4170 Theory of Computation
CSC 4380 Information Visualization
CSC 4730 Human-Computer Interaction
CSC 5900 & Special Topics (with Cognitive Science Program approval)
CSC 5930
CSC 5993 Independent Study (with Cognitive Science Program approval)
ECE 3420 Expert Systems Programming
ECE 5445 Introduction to Neural Networks
PHI 2950 Topics in Philosophy (with Cognitive Science Program approval)
PHI 3400 Theories of Knowledge
PHI 4200 Philosophy of Language
PHI 4975 Independent Study & Research (with Cognitive Science Program approval)
PSY 2300 Perception

College of Liberal Arts and Sciences

PSY 2800	Human Factors
PSY 3000	Special Topics (with Cognitive Science Program approval)
PSY 4050	Research Methods
PSY 4200	Physiological Psychology
PSY 5100	Animal Learning and Cognition
PSY 5900	Undergraduate Research (with Cognitive Science Program approval)

Note: Cognitive Science students who do not have the prerequisites for an approved course should apply through the Cognitive Science Program to have the prerequisites waived. Decisions will be made on a case-by-case basis by the course instructor or, in some instances, by the Director of the Cognitive Science Program after considering the particular student's background. In the case of courses that are required by the Cognitive Science Program, it is expected that the prerequisites will be able to be waived for Cognitive Science students. A waiver of prerequisites is also possible in other courses.

Communication

Chair:	Dr. Teresa A. Nance
Professor Emeritus:	Lynch
Associate Professors:	Bowen, Mackey-Kallis, Michal-Johnson, Rose, Shyles
Assistant Professors:	Berens, Crable, Huxford, Moore, O' Leary, Wilke, Woodard
Instructors:	Cowen, Hauck, Linkins;
Website:	www.communication.villanova.edu
Course descriptions:	www.artsci.villanova.edu/courses/communication.html

MAJOR: Thirty (30) credit hours are required. COM 1000, Survey of Communication Studies, and COM 1100, Public Speaking, are prerequisites which must be taken in the sophomore year. A minimum G.P.A. of 2.5 is required. COM 5000, Communication Research, should be taken in the junior year or prior to taking COM 5050, Senior Project.

After enrolling in the required prerequisites, COM 1000 and COM 1100 and declaring the Communication major, students will consult their academic advisers and choose one of three areas of emphasis: Rhetoric & Performance Studies (2000-2950), Media & Film Studies (3000 -3950), and Interpersonal and Organizational Studies (4000 - 4950). They will take three courses in the area of emphasis, one course in each of the other two areas, and one additional course in an area of their choice to complete the major. A complete listing of courses divided by area of emphasis is available in the Communication office.

Communication majors who choose internships may use three credits to satisfy major requirements. If more internship credits are taken, they must be free electives.

MINOR: Survey of Communication Studies (COM. 1000), plus four courses from the major course offerings.

Comprehensive Science

Director: Dr. Frederick Hartmann
Office: 451 St. Augustine Center, 610/519-4661
Website: www.comprehensivesci.villanova.edu

MAJOR: The Comprehensive Science program is designed to allow students interested in the physical and life sciences to get a broad based and thorough exposure to a full spectrum of scientific concerns and practices. The information provided here is a basic outline of the comprehensive science requirements. The elective courses taken may vary based upon special concentrations selected by the student.

The following courses are required of Comprehensive Science majors:

CSC 1024	Computing for Scientists
BIO 2105, 2106	General Biology I and II
CHM 1151, 1152	General Chemistry I and II
CHM 1103/1104	General Chemistry I and II Laboratory
MAT 1500/1505/2500	Mathematical Analysis I, II and III
PHY 2410/2411	University Physics: Mechanics and Lab
PHY 2412/2413	University Physics: Electricity & Magnetism & Lab
OR	
PHY 2414/2415	University Physics: Thermodynamics and Lab

One Mathematics or Computing Sciences elective selected from the following:

CSC 1051	Algorithms and Data Structures I
MAT 2310	Statistics for Experimenters
MAT 2705	Differential Equations with Linear Algebra
MAT 4310	Statistical Methods

At least eight upper level science electives with appropriate laboratories chosen in consultation with the student's advisor.

The degree program allows for students to design a concentration in a particular discipline or an interdisciplinary field. Some sample concentrations follow:

Areas of Concentration:

Biological-Chemistry	Biology
Chemistry	Cognitive Science
Environmental Studies	Geography
Mathematics	Meteorology
Pre-Medical	Pre-Optical
Physics	

Computing Sciences

Chair:	Dr. Robert E. Beck
Professors:	Beck, Cassel, Fleischman, Levitin
Associate Professors:	Goelman, Joyce, Lewis, Soong
Assistant Professors:	Damian, Gehlot, Japaridze, Klassner, Papalaskari, Way
Instructors:	Helwig, Matulis, Zimmerman
Office:	161 Mendel Science Center, tel. 610/519-7307
Website:	www.csc.villanova.edu
Course descriptions:	www.artsci.villanova.edu/courses/computing.html

Two separate majors are offered by the Department of Computing Sciences. The Computer Science Major emphasizes the theory, abstraction and application of computing. Central to computer science is the investigation of algorithms, their complexity and the data structures on which they operate. The Information Science Major focuses on the acquisition, representation, storage, indexing, manipulation, retrieval and management of information in all its forms--text, audio, video, image, animation, and hypermedia.

COMPUTER SCIENCE MAJOR: CSC 1051, 1052, 1200, 1300, 1600, 1700, 1800, 2053, 4170, 4700, and 4790; MAT 1500, 1505, and 2310 plus four departmentally approved elective courses in computer science; PHI 2180; a two-semester science sequence with corequisite laboratories selected from an approved set of courses in Astronomy, Biology, Chemistry or Physics; and one more approved science or engineering course. A specific list of approved electives and approved science/engineering courses can be obtained from the department office. A total of 26 credits in science and mathematics is required. The major in computer science is accredited by the Computing Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

CSC MINOR: CSC 1051, 1052, 1200 or ECE 2490, CSC 1300, CSC 1700, CSC 2053, and two elective courses chosen from the list of approved courses available from the department office.

INFORMATION SCIENCE MAJOR: CSC 1051, 1052, 1200, 1300, 1600, 2053, 2500, 3400, 4140, 4480, 4700, and 4800; MAT 1500, 1505, and 2310 plus three departmentally approved elective courses in information science; PHI 2180; a two-semester science sequence with corequisite laboratories, selected from an approved set of courses in Astronomy, Biology, Chemistry or Physics. A specific list of approved electives and approved science courses can be obtained from the department office.

ISC MINOR: CSC 1051, 1052, 1300, 2500, 3400, 4480 and two elective courses chosen from the list of approved courses available from the department office.

Core Humanities

Director:	Dr. John A. Doody
Assistant Director:	Dr. Marylu Hill
Assistant Professors:	Booth, Busch, Daly, Greenblatt, Hill, Makowski, Kelley, Schofield, Varias, Wright
Post Doctoral Fellows:	Ali, Edsall, Hanby, Horner, McCarraher
Office:	104 St. Augustine Center, tel. 610/519-7325
Website:	www.artsci.villanova.edu/corehumanities/

The College of Liberal Arts and Sciences is committed to the view that the humanities play an essential role in university education by stimulating intellectual wonder, broadening cultural awareness, helping us examine moral values, and strengthening our search for a just and humane society. All Arts and Sciences students have an intensive exposure to the humanities in their Core Humanities Seminar in each semester of the first college year.

Criminal Justice Program

Director :	Dr. William Waegel
Office:	204 St. Augustine Center, 610/519-4740
Website:	www.artsci.villanova.edu/criminaljustice/

The Criminal Justice Concentration is an interdisciplinary program designed to provide students with an understanding of the causes of crime, societal reactions to crime and the nature and application of criminal law.

CONCENTRATION: Six courses, including Criminology (SOC 3000), Philosophy of Criminal Justice (PHI 2140), and a course focusing on due process issues from the list below. Students are *strongly encouraged* to take SOC 3000 as their first course.

SOC 3000	Criminology
PHI 2140	Philosophy of Criminal Justice
Due Process issues, at least one of the following two courses:	
PSC 3500	The Supreme Court and Criminal Justice
SOC 4100	Criminal Procedure

At least three of the following:

SOC 2200	Sociology of Deviance
SOC 3020	Criminal Law and the Community
SOC 3100	Juvenile Delinquency
SOC 3200	Penology and Corrections
SOC 3300	Sociology of Law
PSC 3600	Criminal Justice System

College of Liberal Arts and Sciences

CJ 3000
SOC 4100

Introduction to Victimology
Special Topics:Criminal Justice

Economics

Chair:	Dr. Peter A. Zaleski
Professors :	Thanawala, Zech
Associate Professors :	Donziger, Clain, Farrell, Giordano, Kroch, Wolnicki, Zaleski
Assistant Professors :	Asher, Casario, Coughlan, Li, Mao, Taylor,
Office:	2015 Bartley, tel. 610/519-4370
Website:	www.cf.villanova.edu/economics/
Course descriptions:	www.artsci.villanova.edu/courses/economics.html

BACHELOR OF ARTS IN ECONOMICS: Students in the College of Liberal Arts and Sciences who specialize in Economics earn the degree of Bachelor of Arts in Economics. Such students must take Calculus (MAT 1330 or equivalent) either to satisfy their math requirement or as a free elective. They should take ECO 1001 and ECO 1002 as two of the three social science courses in the Sophomore year. In addition, students must successfully complete: ECO 2101, 2102, 2137 (or equivalent), 4132; and 15 elective Economics credits. Students may receive a Concentration certificate by choosing to specialize in one of the following areas – (Business Economics, Global Economics, Human Resource Economics, or Pre-Law) by taking, as part of their 15 elective credits, three courses within their specialty and focusing their seminar paper (ECO 4132) on that specialty area.

MINOR: Students must take Calculus (MAT 1330 or equivalent), and complete a total of 18 credits consisting of ECO 1001, 1002, 2101, 2102, and 2 elective courses with course numbers ECO 3000 or above..

For a list of economics courses, please see the Economics listing in the College of Commerce and Finance section of this *Catalog*.

Education and Human Services

Chair:	Dr. Connie Titone
Professors:	Brooks, Heitzmann, Weinrach
Associate Professor:	Davis, Durnin, Jacobs, Titone
Assistant	Fierros, Hill, Kahn, Lafferty, Monnig, Murray, Nichols,
Professors:	Ramirez, Rosa, Schussler
Office:	302 St. Augustine Center, tel. 610/519-4620
Website:	www.education.villanova.edu
Course descriptions:	www.artsci.villanova.edu/courses/education.html

The Department of Education and Human Services secondary teacher education program seeks to develop prospective teachers able to meet the demands of teaching in a variety of school environments, public and private, urban and suburban. Provisions for professional competencies and teacher certification include a thorough grounding in the liberal arts, a substantial concentration in an area of specialization and a study of the foundations, principles and methods of education. NOTE: Courses marked with an * are for education majors and students from other departments who have been accepted into the Teacher Education Program. Education majors and minors must come to the Department each semester for advising.

MAJOR: Secondary Education majors are required to earn a total of 37 credit hours in Education courses. These 37 hours include a Senior Seminar and a 12 credit Student Teaching experience which is open only to students of the senior year who have completed all the subject matter courses in the field of specialization. Students are required to maintain a QPA of 3.0. Students are also required to successfully complete the state mandated Praxis Series of Examinations. These examinations are usually completed during the senior year.

MINOR: A minor in Education requires at least 16 credits. Distribution requirements are: EDU 2202, 3251, 3254, 4290. An additional three credits must be earned from among the following: EDU 2201, 3263, 4220, 4245, 4301.

HUMAN SERVICES PROGRAM

The Human Services program is designed for students who desire a degree in liberal arts while pursuing a course of study which includes an experiential component as well as training for a specific career. Specialization within the program will allow the student to concentrate on specific areas related to government and human service agencies.

MAJOR: The requirements for a major in Human Services include the courses listed below in addition to Psychology 1000, 2200, 2500, 2600, and elective; Sociology 1000, 2200, 3600, 2300, and an elective which lead to a minor in Psychology and Sociology, respectively.

MINOR: A minor in Human Services requires a total of 15 credits. Distribution requirements are: H S 2000, H S 2100, H S 3000, H S 3100. An additional three credits must be earned from one of the following: H S 3500, H S 3600 or HS 3700.

English

Chair:	Dr. Charles L. Cherry
Professors:	Cherry, Delano, Kirschke, McDiarmid, Sherry, Thomas, Wilkinson
Associate Professors:	Berthold, Hicks, Hollis, Murphy, Ormsby-Lennon, Radcliffe,
Assistant Professors:	Akoma, Bader, Black, Irwin, Lucky, Lutes, Moll, Sewell, Shohet, Vilmure,
Instructors:	Bonds
Office:	402 St. Augustine Center, tel. 610/519-4630
Website:	www.english.villanova.edu
Course descriptions:	www.artsci.villanova.edu/courses/english.html

MAJOR: Thirty-three hours in advanced English courses (numbered 2000 or above) in the junior and senior years, including:

- Two courses in British literature pre-1800 from two of three areas: (1) Medieval; (2) Renaissance (to 1649); (3) Restoration and Eighteenth Century.
- One course in American literature to 1900 or one course in nineteenth-century British literature.
- One course in American literature after 1900 or British/Irish literature after 1900.
- Senior Seminar
- Six electives

British Literary Tradition 1 and 2 (2101, 2102) and American Literary Tradition 1 and 2 (2103, 2104) are not required for the major, but can operate as free electives with a maximum of two permitted toward the major (including any survey course taken as a Core literature requirement).

MINOR: Fifteen hours including:

- At least one course from the British literature offerings.
- At least one course from the American literature offerings.
- At least three electives from the English departmental offerings (2000 to 4999).

ENGLISH AS A SECOND LANGUAGE: English 0990 (ESL 1), and English 0095 (ESL 2). For those foreign students who need to strengthen their oral and verbal skills in English, the ESLP provides two courses: ENG 0990 and ENG 0095. The courses will concentrate on improving students' basic grammar, as well as their pronunciation, conversation, reading comprehension, and writing skills.

Environmental Studies Concentration

Director: Dr. John Olson
Office: 152 Mendel, tel. 610/519-4837
Website: <http://www.artsci.villanova.edu/envstuds>

The Environmental Studies Concentration promotes an interdisciplinary approach to environmental issues through both coursework and independent study/internship experience. Several requirements of the Concentration also fulfill requirements in the student's major and/or in the Core Curriculum. The Concentration is open to students from all colleges and all majors.

Concentration: Students take all of the courses in Category A-REQUIRED, including ENV 1050, ENV 1051, ENV 4000, PHI 3820, an independent study course (internship or senior thesis or independent /group project) in student's major, and one course each in statistics (e.g., MAT 1230, 1235, 1250, 2310 or BIO 3105) and calculus (several possible). In addition, students take at least one course in each of three categories: Category B-NATURAL SCIENCE AND GEOGRAPHICAL TECHNIQUES (BIO 3255, GEO 1500, 4050, 4101, 4250, 4300), Category C-POLICY AND MANAGEMENT (GEO 5100, 5200, 5300, ECO 1104, PSC 2600, 2625, 3800), and Category D-ENVIRONMENTAL SOCIAL SCIENCES & HUMANITIES (GEO 2000, 2100, 2200, 2300, HIS 2276, PHI 2160, 2430, PJ 2200, SOC 3750). Please see the Director and visit the website for advice on completing the Concentration.

Ethics

Director: Dr. Sarah Vaughan Brakman
Office: 485 St. Augustine Center, tel. 610/519-4780
Website: www.ethics.villanova.edu
Course descriptions: www.artsci.villanova.edu/courses/ethics.html

The University believes that issues of ethics and values are at the heart of every human endeavor. In addition to regular requirements in the sciences and humanities, the College of Liberal Arts and Sciences and the College of Commerce and Finance require each student to take a special multidisciplinary course in ethics, typically in the sophomore year. The purpose of this course is to give students the opportunity to examine and discuss both ethical theories and their applications to contemporary moral issues. This course is designed to contribute to the implementation of Villanova's mission statement which states that, as a Catholic institution Villanova both emphasizes the values of the Jewish and Christian humanistic traditions and concerns itself with all value systems.

College of Liberal Arts and Sciences

CONCENTRATION: The Ethics Concentration offers students an opportunity to pursue in-depth an intellectual discipline that studies human character and conduct. Each student in the concentration selects one of four tracks and takes ETH 2050, two required track courses, two additional electives from that track, and ETH 3000. Concentrators must also fulfill the service requirement.

Service component: a minimum of 100 hours of approved service, including work with the poor or otherwise marginalized members of our society and/or work related to building a sustainable world environment. This component affords students the opportunity to engage in practical moral inquiry. The student, in conjunction with the program director, will arrange and design the service with the goal of enhancing comprehension of applied ethical issues in the track selected by the student.

TRACKS:

A. ETHICS AND HEALTH CARE

Required track courses:

PHI 2115	Ethics for Health Care Professionals
THL 4200	Ethics of Life and Death or THL 5950 Death and Dying

Track Electives:

BIO 3341	Genetics
BIO 3905	General Microbiology
NUR 4130	Issues in Health Care Delivery
NUR 4800	Women's Health Issues
NUR 4802	Issues and trends in Gerontology
PHI 2125	Death and Dying
PHI 3525	Philosophy of Human Sexuality
PHI 2950	Topic in Philosophy: Feminism, Ethics and Medicine
THL 4100	Christian Ethical Traditions and Contemporary Life

B. ETHICS, POLITICS, AND LAW

Required track courses:

PHI 3650	Philosophy of Law
PJ 5000	Meanings of Justice

Track electives:

PHI 2140	Philosophy of Criminal Justice
PHI 2130	Business Ethics
PJ 5100	Discrimination, Justice and the Law
PSC 3500	Civil Rights and Civil Liberties
PSC 3800	Environmental Law
SOC 3000	Criminology
SOC 3010	Crime and Criminal Justice
THL 4300	Ethical Issues in Peace and Justice
THL 4600	North/South: Development Ethics

C. ETHICS, ECONOMICS, AND PUBLIC POLICY

Required Track Courses:

ECO 4207/PJ 5200
THL 4320

Poverty and the American Economy
The Social teachings of the Christian Churches

Track Electives:

PHI 1600	Business and Society
PHI 2130	Business Ethics
PHI 2400	Social and Political Philosophy
PHI 3820	Environmental Ethics
PHI 2410	Ethics of War
PHI 2170	Ethical and Social Issues in Mass Media
PHI 2150	Engineering Ethics
PJ 2500	Education and Social Justice
PJ 2400/THL 4350	Service and Education for Justice
PJ 3400/THL 4310	War and Morality
PJ 5400/THL 4340	Ethics, Justice and the Family
PJ 5000	The Meaning of Justice
PJ 2600	Catholic Social Thought and Analysis
PSC 2600	Public Policy
PSC 3800	Environmental Law and Regulation
PSC 3500	Civil Rights and Civil Liberties
THL 4600	North/South: Development Ethics
THL 4300	Ethical Issues in Peace and Justice

D. ETHICS, SCIENCE, TECHNOLOGY, AND ENVIRONMENT

Required Track Courses:

PJ 2200	Caring for the Earth
PHI 3820	Environmental Ethics

Track Electives:

BIO 3255	Introductory Ecology
BIO 3351	Genetics
ECO 1104	The Environment and the Economy
HIS 3321	Science and Technology in Modern History
PHI 2180	Ethical Issues in Computer Science
PHI 3825	Technology and Society
PHI 4050	Philosophy of Natural Science
PHI 2430	Eco-Feminism
PHI 2150	Engineering Ethics
PHI 295	(Topics in Philosophy) Philosophy of Biology
PSC 3800	Environmental Law and Regulation
THL 4600	North/South: Development Ethics
THL 5400	Science and Religion

Geography

Program Director:	Dr. J. Harold Leaman
Associate Professor:	Leaman
Assistant Professor:	Hu
Office:	202 St. Augustine Center, tel. 610/519-4710
Website:	www.geography.villanova.edu/
Course descriptions:	www.artsci.villanova.edu/courses/geography.html

The geography major and minor are administered by the Political Science department.

The geography major focuses on the interaction of human and physical environments within a spatial context. Individual programs are formed around major geographic problems and world regions. The department offers course work in four areas (1) human systems analysis; (2) geographical techniques; (3) regional analysis; and (4) environmental analysis. Students are encouraged to explore closely related academic fields and interests.

MAJOR: At least 24 credits in geography. The distribution of these credits is: GEO 1000 introductory courses (6 credits); GEO 3000 regional courses (3 credits); GEO 4000 techniques courses (3 credits); GEO 6000 seminar and independent study courses (3 credits); and 9 credits for any combination remaining of the 1000, 2000, 3000, 4000, 5000, and 6000 series courses.

Majors and Minors who meet certain academic standards are eligible for membership in The Eta Lambda chapter of Gamma Theta Upsilon, the International Geography Honors Society, which annually sponsors activities, lectures and field trips. Internships designed for geography majors are also available.

MINOR: Requirements are: GEO 1000 introductory courses (3 credits); GEO 3000 regional courses (3 credits); and 9 credits from any combination of the 1000, 2000, 3000, 4000, 5000, and 6000 series courses.

Humanities and Augustinian Traditions

Chair:	Dr. Thomas W. Smith, Ph.D
Assistant Professors:	McCarraher, Wulff
Office:	415, 420 St. Augustine Center, tel. 610/519-4710
Website:	www.humanities.villanova.edu/
Course descriptions:	www.artsci.villanova.edu/courses/geography.html

MAJOR: A minimum GPA of 2.75 is required to declare Humanities as a major. Students not meeting this requirement can petition the Chair for acceptance into the program.

This interdisciplinary major affords students the opportunity to pursue a course of studies which integrates a number of disciplines by focusing on the human person from a variety of perspectives. Students must complete a gateway course, HUM 2000: Sex, Birth, Love and Death, and 24 additional credits to craft their course of studies in conversation with the Chair of the department. Students may select one of the following three areas of study: 1) The Person in the Humanities, 2) The Person in Science and Social Science, or 3) Independent Studies.

MINOR: HUM 2000 and 4 electives from one of the concentrations

History

Chair:	Dr. Adele Lindenmeyr
Professors:	Lindenmeyr, Gallicchio
Associate Professors:	Haas, Johnson, Keita, Kiley, Koven, Little, McLaughlin
Assistant Professors:	Ener, Giesberg, Kerrison, Mires, O'Toole, Rosier, Ryan, Steege, Sullivan, Winer
Office:	403 St. Augustine Center, tel. 610/519-4660
Website:	www.history.villanova.edu
Course Descriptions:	www.artsci.villanova.edu/courses/history.html

MAJOR: HIS 1040 or 1050 plus 27 additional credits in history including: HIS 5501 (Historical Methods) or HIS 5515 (Independent Research); at least six credits in United States history (2000 level courses) at least three credits of which must be HIS 2000 or HIS 2001; at least six credits in European history (3000 level courses); at least three credits in Latin American, Middle Eastern, African, or Asian history (4000-4500 level courses); and nine credits of history electives. One of the European history courses must be in a period before 1750.

MINOR: At least 18 credit hours in history. For students in the College of Liberal Arts and Sciences, the 18 credit hours must include HIS 1040 or 1050.

Honors Program

Director:	Dr. Edwin L. Goff
Assistant Director:	Ms. Christine Muller
Office:	103 St. Augustine Center, tel. 610/519-4650
Website:	www.honorsprogram.villanova.edu
Course descriptions:	www.artsci.villanova.edu/courses/honors.html

The Villanova Honors Program is a comprehensive four-year curriculum of small seminars designed to foster the free and open exchange of ideas among students and faculty. Honors courses emphasize extensive reading and writing, and attempt to develop the critical abilities of judgment and analysis. Innovative courses include team-taught seminars and seminars given by visiting professors. All Honors courses are enriched by a variety of lectures, cultural events, and social activities. Students in the College of Liberal Arts and Sciences may receive the degree of B.A or B.S. Honors Program. The Honors Program Sequence in Liberal Studies (the Honors Program concentration) is open to students in all colleges.

B.A.H. DEGREE: Twelve Honors courses, including the Humanities or Social Science Seminar, a five-credit or six-credit senior thesis, and three upper-level courses (HON 2500 or above) not used to fulfill core requirements.

B.S.H. DEGREE: Ten Honors courses, including the Natural Science Seminar, a five-credit senior thesis, and three upper-level courses which may be used to fulfill core requirements. (Two Honors laboratory sections are the equivalent of one course.)

HONORS PROGRAM SEQUENCE (CONCENTRATION) IN LIBERAL STUDIES: Eight courses in Honors, at least three of which must be upper-level.

All Honors Program certifications require a minimum overall QPA of 3.33. Honors classes may be used to fulfill liberal arts requirements and electives. For first- and second-year students, the Program offers Honors seminars in place of the core curriculum introductory courses in the humanities, social sciences, and natural sciences. Some students are invited to take multi-credit, team-taught interdisciplinary seminars (HON 1000, 1050, 2000 series) which examine the major works of Western Civilization in place of regular core requirements. This Honors core culminates with specially-designed seminars on methodology, current issues, and ethical questions in the humanities, social sciences, or natural sciences. On the advanced level, the Honors Program offers a variety of seminars that include traditional themes of enduring significance, timely issues of concern, and interdisciplinary studies not available elsewhere in the college. All have in common small student enrollment, active class participation, and intensive writing requirements. Specific offerings change from semester to semester to reflect the interests of faculty and students in the Program. All upper-level seminars also fulfill major and minor requirements in specific academic disciplines.

Admission to the Honors Program is by invitation or by application to the Director. Members of the Program are expected to take Honors courses at least every other semester, and to maintain high academic standards. Individual Honors courses are open to all Villanova students who have at least a 3.0 overall QPA or will bring a special expertise to the course, contingent upon class size limitations. Admission to all Honors courses requires the permission of the Director.

Irish Studies

Director: Dr. James J. Murphy
Office: 467 St. Augustine Center, tel. 610/519-4676
Website: www.artsci.villanova.edu/irishstudies/

Irish Studies explores the history and culture of the Irish people from different perspectives -- literature, history, art, politics, and folklore. The program is open to students from all colleges. Interested students may also study in Ireland either in a Semester Abroad program or with the Villanova-in-Ireland Summer program at University College Galway. Details are available in the Irish Studies Office.

CONCENTRATION: Fifteen credits including two core courses, ENG 2500 and HIS 3216, and any three of the following: AAH 3007; ENG 2450, 2460, 2500, 2700, 3615; HIS 3215, 3216; HON 5601; PSC 4950, 6875; or SOC 6500.

Latin American Studies

Director : Dr. Satya Pattnayak
Office: 273 St. Augustine Center, tel. 610/519-4773
Website: www.latinamericanstudies.villanova.edu

The Latin American Studies Program is an interdisciplinary program that provides courses, a minor, and a concentration in Latin American Studies. It is open to students in all degree programs and in all four undergraduate colleges.

MINOR: Two courses in Spanish language training at or above the intermediate level, LAS1100, and any four additional courses (total 21 credits) from following list below of core and/or elective courses

Concentration: Two courses in Spanish language training beyond the intermediate level, LAS 1100, and any combination of five courses (total 24 credits) from the list below of core and/or elective courses.

Program Core:

ECO 4200	Special Topics: The Economics of Latin American and the Caribbean
HIS 4405	The Americas and Spanish Conquest
HIS 4410	Colonial Latin America
HIS 4415	Revolutionary Latin America
HIS 4420	Contemporary Latin America
HIS 4495	Topics in Latin American History
HON 4000	Latin American Themes
LAS 1100	Latin American Seminar
LAS 3412	Special Topics
PSC 4750	Latin American Politics
S OC 6500	Seminar in Sociology: Third World Development: Latin America
SPA 1121	Intermediate Spanish I
SPA 1122	Intermediate Spanish II
SPA 1131	Conversation and Composition
SPA 1132	Advanced Conversation and Composition
SPA 1138	Advanced Grammar
SPA 2143	Spanish American Civilization
SPA 2212	Survey of Spanish American Literature
SPA 2213	Spanish American Theater
SPA 2214	Spanish American Novel
SPA 2215	Spanish American Short Story
SPA 3822	Spanish American Poetry

Elective courses:

HIS 4490	Topics in World History: Racism and Justice in the Americas
LAS 5000	Internship
LAS 6000	Independent Study Research
PSC 5800	Politics of International Economics
PSC 6875/ HIS 4490*	Modern Political History of the Southern Cone*
SOC 3600	Race and Ethnic Relations
SOC 3750	Human Populations
SOC 4000	Social Change In South America*
SPA 1133	Business Spanish I
SPA 1134	Business Spanish II
THL 3740	Liberation Theologies
THL 4600	North/South Development Ethics

*Offered only through Villanova Summer Program in Valparariso, Chile.

Liberal Arts Program

Director:	Dr. Nancy Kelley
Office:	451 St. Augustine Center, tel. 610/519-4661
Website:	www.liberalarts.villanova.edu
Course descriptions:	www.artsci.villanova.edu/courses/liberal.html

NOTE: This program is only available for those students who have already enrolled in the program as of Spring Semester 2002. No other students will be accepted into this program. Students who are interested in an interdisciplinary major in the Humanities may also contact Dr. Kelley about the new Humanities Major administered by the Department of Core Humanities.

GENERAL REQUIREMENTS: A minimum of eight advanced courses are chosen for the Liberal Arts major. The normal fourth Core Writing Intensive course is satisfied with the Liberal Arts Seminar (LA 5001). Under special circumstances outlined by the Director and upon written request a student may substitute a research project (LA 6001) for the seminar. Courses which may not be used for the major in Liberal Arts include all courses numbered from 1000 to 1999 (except for Art and Art History) as well as certain specific courses numbered 2000 and above found listed in the Enchiridion or at the Office of Special Programs. The Liberal Arts degree may not be part of a double major.

CONCENTRATIONS:

- ❑ The Humanities Concentration: (1) Seven non-excluded upper level electives beyond the core requirements from within the following disciplines: Art History, Classical Studies, Communication Arts, Education, English, French, German, History, Peace and Justice, Philosophy, Religious Studies, Spanish, Theatre, and appropriate Honors courses; and, (2) the Liberal Arts Seminar (LA 5001).
- ❑ The Social Sciences Concentration: (1) Seven non-excluded upper level electives beyond the core requirements from within the following disciplines: Criminal

College of Liberal Arts and Sciences

Justice, Economics, Geography, Political Science, Psychology, Sociology, and appropriate Honors courses; (2) the Liberal Arts Seminar (LA 5001).

- Independent Studies Concentration: (1) Seven non-excluded upper level electives beyond the core requirements from within a combination of the humanities and social sciences. This affords the student the freedom to define their educational program and goals through the design of an intellectually challenging and coherent program. Students interested in this concentration must submit to the Director of Liberal Arts an essay describing the goals and proposed program of study. With the approval of the Director and in cooperation with the student, a faculty mentor will be assigned. (2) Unless waived in lieu of a special seminar or research project (LA 6001) the student must also take the Liberal Arts Seminar (LA 5001). Students may use this option for concentrations in family studies, environmental studies, medieval thought, Catholic studies, psychology of learning, etc.

Mathematical Sciences

Chair:	Dr. Douglas Norton
Professors:	DeVos, Feeman, Fleischman, Hartmann, Jantzen, Marrero, Pigeon, Sprows, Woldar
Associate Professors:	Gluchoff, Kleiber, Levitan, Longman, Lynn, Norton, Pollack-Johnson, Rhodes, Short, Styer, Volpert
Assistant Professors:	Ashley, Bartlow, Belkin, Borchardt, Deanin, Lupinacci, Pasles, Seliktar
Instructor:	Chiacchiere Lukens, Santomas
Director of	Rimmer
Mathematics Learning and Resource Center:	
Office:	305 St. Augustine Center, tel. 610/519-4850
Website:	www.math.villanova.edu
Course descriptions:	www.artsci.villanova.edu/courses/math.html

FRESHMAN CALCULUS: Prospective first year Villanova students who have completed a year's study of calculus in high school should take the CEEB Advanced Placement test for possible credit for the first course at Villanova.

MAJOR: MAT 1500, 1505, 2500, 2600, 2705, 3300, 3400, 3500, and 5900; an approved analysis elective course, plus four additional mathematics courses numbered 3000 or higher; a two-semester natural science sequence with laboratory, e.g. PHY 2410/2411 and 2412/2413; a third science course, e.g. CSC 1051 (all science courses must be at the science-major level).

MINOR: MAT 1500, 1505, 2500, 2600, plus four courses chosen from MAT 2705, 2710, and courses numbered 3000 or higher. Students may petition to substitute an approved upper division course (e.g., CSC 4170, ECE 3720, PHY 4202, CEE 3702) in his/her major for one of these four courses. To graduate with a minor, students must have at least a 2.0 Q.P.A. in their Mathematics courses.

NOTE: The University offers multiple versions of calculus and of statistics. One cannot receive credit for two similar versions of calculus or statistics without prior approval. Please contact the department for more information.

Naval Science

Chair:	Col. J. Bruce Hulick, USMC
Professor:	Hulick
Instructors:	Buchanan, Andersen, Chalkley, Gaspary, McKenzie, Reller
Office:	103 John Barry, tel. 610/519-7380
Website:	www.nrotc.villanova.edu
Course descriptions:	www.artsci.villanova.edu/courses/naval.html

Eligibility for a commission in the U.S. Navy or the U.S. Marine Corps through the NROTC Program is contingent upon successful completion of required University and naval professional courses of study. Courses required by the NROTC program are as follows:

1. Navy Option: NS 0100, 1000, 1100, 2100, 2200, 3100, 3200, 4100, 4200 plus six credits each of calculus (completed by end of Sophomore year), and physics (completed by the end of Junior year). Also three credits each of Computer Science, American military affairs, and English. All courses must be approved by the Naval Science Adviser.
2. Marine Option: NS 0100, 1000, 1100, 3500, 3600, 4100, 4200 and three credits of American military affairs, approved by the Marine Option Adviser.
3. Nurse Option: NS 0100, 1000, 1100, 4100, 4200, and six credits of English, approved by Naval Science Adviser.

MINOR: (Navy Option) NS 0100, 1000, 1100, 2100, 2200, 3100, 3200, 4100, 4200.
(Marine Option) NS 0100, 1000, 1100, 3500, 3600, 4100, 4200.

Peace and Justice

Director : Dr. William Werpehowski
Office: Ground Floor, Sullivan, tel. 610/519-4499
Website: www.peaceandjustice.villanova.edu/
Course descriptions: www.artsci.villanova.edu/courses/pj.html

CONCENTRATION: Twenty-four 24 credit hours, including all requirements for the minor plus two additional courses from Peace and Justice seminar categories or cross-listed by Peace and Justice.

MINOR: Eighteen credit hours, including either PJ 1100 or 5300; at least three courses from two different Peace and Justice seminar categories (2000, 3000, 4000, 5000); and two courses from the remaining Peace and Justice seminars or from those courses cross-listed as Peace and Justice courses.

Philosophy

Chair: Dr. Helen Lang
Professors: Betz, Brogan, Busch, Caputo, Doody, Fielder, Immerwahr
Associate Professors: Carvalho, Goff, Losoncy, McCartney, Scholz, Wall
Assistant Professors: Brakman, Klein, Livingston, Mensch, Miles, Regan,
Office: 108 St. Augustine Hall, tel. 610/519-4690
Website: www.philosophy.villanova.edu
Course descriptions: www.artsci.villanova.edu/courses/philosophy.html

Requirements for Major :

In addition to fulfilling the College Core Requirements (PHI 1050, and one upper division philosophy elective), a philosophy major must take nine additional philosophy courses including:

One course in Ancient Philosophy from the following:

PHI 2500 History of Ancient Philosophy
PHI 3000 Plato and Aristotle
An Honors or Philosophy Topics course in this area. (This course must be approved by the Chair in order to fulfill the ANCIENT requirement.)

One course in Medieval Philosophy from the following:

PHI 2510 History of Medieval Philosophy
PHI 3100 An Introduction to St. Augustine
PHI 3120 Augustine in Western Thought

PHI 3130 Augustine and the Existential Tradition
 PHI 3160 Islamic Philosophy
 PHI 4600 Introduction to St. Thomas Aquinas
 An Honors or Philosophy Topics course in this area. (This course must be approved by the Chair in order to fulfill the MEDIEVAL requirement)

One Course in Modern Philosophy from the following:

PHI 2520 History of Modern Philosophy
 An Honors or Philosophy Topics course in this area. (This course must be approved by the Chair in order to fulfill the MODERN requirement.)

An additional six courses from the Philosophy departmental offerings including either 2-PHI-5000 Advanced Seminars or 1-PHI-5000 Advanced Seminar and 1-PHI-6000 Research Seminar.

NOTE: Students may take one of two paths within the major. In the Track Path students will select a track and take 3 courses as part of that track. One or two of these courses may be advanced seminars. The track will serve as a focus within the major. The Five Tracks are Cultural Studies, Pre-law, Social and Political Philosophy and Ethics, History of Philosophy, Continental Philosophy. Details for these tracks may be requested from the Department of Philosophy. In the Thesis Path students will treat 5 courses as free electives, one of which must be an advanced seminar. The sixth course will be PHI 6000, the thesis, and is required of all students in this path. The thesis will provide a focal point for the student’s work and development in philosophy.

A student with majors in Philosophy and another discipline may, with the approval of the Chair of the Philosophy Department, count up to two cognate related courses (six credits) from the second major toward fulfilling the Philosophy major.

Requirements for Minor:

Any five electives from the Philosophy departmental offerings. These may include all of the courses completed to satisfy the core requirement in philosophy, but no more than two courses from the following list may be applied to the philosophy minor.

PHI 1050	Introduction to Philosophy
PHI 2015	Logic
PHI 2130	Business Ethics
PHI 2115	Ethics for Health Care Professionals
PHI 2150	Engineering Ethics

Physics

Chair:	Dr. Philip Maurone
Professors:	Hones, Maurone, Phares
Associate Professors:	Shaw, Vassiliou, Wunderlich, Zamani
Assistant Professors:	Arrison, Besson, Papaefthymiou-Davis, Schick, Siah, Strieb,
Office:	352A Mendel, tel. 610/519-4860
Website:	www.phy.villanova.edu
Course descriptions:	www.artsci.villanova.edu/courses/physics.html

MAJOR: PHY 2410/2411, 2412/2413, 2414/2415, 2416/2417, 2601/2603, 3310/3311, 4000/4001, 4002/4003, 4100/4102, 4200/4202, 5100, 5200, 5300; CHM 1103, 1151/1152; MAT 1500, 1505, 2500, 2705. In addition, Physics majors must select a minimum of one elective from the Physics departmental offerings and three science courses chosen from courses for Science, Mathematics or Computer Science Majors.

MINOR: Successful completion of an introductory sequence in Physics, plus a minimum of 15 credits from the upper level Physics courses numbered above 3000. Physics minors are open to all science and engineering students.

Political Science

Chair:	Dr. Craig Wheeland
Professors:	Hahn, Johannes, Kerbel, Langran, Lesch, Malik, Thompson
Associate Professors:	Barrett, Ellis, Gustafson, Sheehan, Smith, Strack, Wheeland
Assistant Professors:	Kreuzer, Maranto, Toyoda
Office:	202 St. Augustine Center, tel. 610/519-4710
Website:	www.psc.villanova.edu
Course descriptions:	www.artsci.villanova.edu/courses/psc.html

MAJOR: Thirty credit hours in political science courses are required for a major including the two introductory courses and a senior seminar (PSC 6900, restricted to Political Science senior majors). Elective courses are divided into three areas: American Government and Public Law (2000 and 3000 level), Comparative Government and International Relations (4000 and 5000 level), and Political Theory and Behavior (6000-6800). The political science major must complete three courses from at least one area, two from another area, and one from the remaining area. One additional course must be taken for a total of ten courses. Political science majors are encouraged to take two economics courses, more than the minimum number of courses in languages, at least one

geography course, and the two introductory statistics courses to complete their core math requirement (MAT 1230 and MAT 1235).

CONCENTRATION WITHIN THE MAJOR: Nine additional credits beyond the 30 credits for a major may earn a student a certificate in a concentration area. Concentrations may be earned in: International Studies, Pre-Law, Public Administration, Political Theory. A list of courses which satisfy each concentration is available in the departmental office.

MINOR: Fifteen credits consisting of the two introductory courses plus any three advanced courses will earn a student a minor in Political Sciences. Courses taken on a satisfactory/unsatisfactory basis cannot be used to satisfy requirements for the minor.

Psychology

Chair:	Dr. Thomas C. Toppino
Professors:	Blewitt, Brown, Bush, Folk, Klieger, Long, Toppino, . Ziegler
Associate Professors:	Kendzierski, Kurtz
Assistant Professors:	Brand, Krauss, Markey, Matell, Sheldon
Office:	334 Tolentine, tel. 610/519-4720
Website:	www.psychology.villanova.edu/
Course descriptions:	www.artsci.villanova.edu/courses/psychology.html

MAJOR: PSY 1000 plus 28 additional credits including PSY 4000, 4050, 4100, 4150, 4200, 4500, and 12 elective credits (four electives). PSY 4000 and 4050 are prerequisites for many upper level Psychology courses (PSY 4200 and above). Students who contemplate majoring in psychology may begin the major early by taking PSY 1000, plus any elective courses for which PSY 1000 is the only prerequisite.

To choose psychology as a major, a student must have earned a "C+" or higher in General Psychology (PSY 1000) or have a cumulative QPA of 3.00 or better. Because of course prerequisites, students should expect that completion of the major will require at least four semesters after their formal declaration of the major.

MINOR: PSY 1000 plus any combination of 12 undergraduate credits in psychology.

Courses taken on a satisfactory/unsatisfactory basis cannot be used to satisfy requirements for the major or minor. PSY 1000 is a prerequisite for all other courses in psychology.

Russian Area Studies

Director: Dr. Jeffrey Hahn
Office: 264 St. Augustine Center, tel. 610/519-4640
Website: www.artsci.villanova.edu/Russian/

The Russian Area Studies Concentration is open to all students enrolled in the University. The purpose of the concentration is to provide students with a multi-disciplinary comprehension of an exciting, important, and complex part of the world.

CONCENTRATION: Two semesters of Russian at the intermediate level, or demonstrated proficiency at an equivalent level, plus fifteen credit hours selected from among the following: HIS 3420; HIS 3241, 3242; PSC 4401, 5351, 5950; RUS 1131, 1132, 3412, 3717, 3718, 3810, 3818, 3819; SAT 4007; THL 5510; and appropriate special topics courses in Economics and approved by the director. In addition students are required to take RAS 6000, a multi-disciplinary intensive investigation of a topic in Russian studies, generally taken in the senior year.

Students are encouraged to study in Russia for a summer or semester, either at Nizhny Novgorod State University in Central Russia (which has an exchange agreement with Villanova), or at another approved Russian university. Contact the Russian Area Studies Office or the International Studies Office for further details on available programs and transfer of credits.

Sociology

Chair:	Dr. Thomas Arvanites
Professors:	DeFina, Gallagher, Jones, Juliani, Knapp, McFalls
Associate Professors:	Arvanites, Eckstein, McGarry, Malik, Pattnyak, Shai, Waegel
Assistant Professor:	Hannon, McKenzie
Office:	204 St. Augustine Center, tel. 610/519-4740
Website:	www.sociology.villanova.edu
Course descriptions:	www.artsci.villanova.edu/courses/sociology.html

MAJOR: The Sociology major requires completion of 10 courses. Four courses are required of all majors, while the remaining six are selected by students on the basis of their interests or career aspirations. Introduction to Sociology (Soc 1000) is required of all majors and is the first course that students should take. In addition, 3 courses are required in the theory-methods area (5000 level courses). There are 3 sociological theory course offerings (Soc. 5000, 5050, and 5100) and 3 research methods course offerings (Soc. 5200, 5300, and 5400). Students can take 2 courses from one group and 1 course from the other group or take Soc. 6500 (Senior Seminar) as their 2^d theory or 2^d methods.

MINOR: SOC 1000 and four other courses chosen from the offerings of the department. The student must inform the chair of his or her intention to minor and request certification of the minor when it has been completed. A concentration in Criminal Justice is available for interested students.

A student may take an internship in a field setting in the second semester of the junior year or during the senior year. Students should consult with the Chair and Director of the Internship Program.

Studio Art and Music

Office: 205 St. Augustine Center, tel. 610/519-4760
Course descriptions: www.artsci.villanova.edu/courses/sar.html

Courses in Studio Art and Music are administered by the chair of the Theatre Department.

Theatre

Chair: Rev. Peter M. Donohue, O.S.A.
Professor: Christy
Associate Professors: Cannuli, Power, Rotte,
Assistant Professors: Donohue, Lloyd, Stagliano,
Office: 205 St. Augustine Center, tel. 610/519-4760
Website: www.theatre.villanova.edu/
Course descriptions: www.artsci.villanova.edu/courses/theatre.html

MINOR: Students may fulfill a Theatre Minor by completing five theatre courses (three required/two elective) and a theatre practicum. Interested students should request further information through the Theatre Department Office in St. Augustine Center for the Liberal Arts, Rm. 205.

Students majoring in Communication may declare Theatre as their Area of Emphasis. Students majoring in Education may declare an English/Communication concentration with Theatre as the Area of Emphasis.

Any student may educate himself/herself in the art and craft of theatre through Electives and through participation in the department's Theatrical Productions. Auditions and backstage positions are open to all undergraduates for the entire academic theatre season.

Theology and Religious Studies

Chair:	Rev. Arthur Chappell, O.S.A.
Professors:	Binns, Conn, Dobbin, Prusak, Scanlon, Van Allen, Werpehowski
Associate Professors:	Benavides, Danove, Eigo, Hadley, Godzieba, Inati, Lazor, Loya, Martin, Toton,
Assistant Professors:	Chappell, Doyle, Enright, Hughes, Graham, Laird, Pohlhaus, Veverka, Weaver
Office:	107 St. Augustine Center, tel. 610/519-4730
Website:	www.theology.villanova.edu
Course descriptions:	www.artsci.villanova.edu/courses/theology.html

MAJOR: Thirty credit hours exclusive of the required introductory course, THL 1050, which students in the College of Liberal Arts and Sciences and the College of Commerce and Finance normally take in the sophomore year. Twenty-four credit hours are to be taken from among the following: THL 2725, 2726 and 2590 (to be taken as soon as possible after the major is declared); one course in Biblical Studies; THL 3100 or 3500; THL 3200; a choice of one among THL 3300, 3325, 3400, 3600; a choice of one among THL 5100 through 5300 plus 5500 and 5510. A student may choose the remaining three credit hours from any of the other Theology and Religious Studies courses. THL 3500 is especially recommended.

MINOR: Eighteen credit hours inclusive of the required introductory course (see above). Normally, a minor should be declared in the sophomore year or no later than the second semester of junior year. All courses required for the major are highly recommended for minors, especially THL 2725 and 2726; at least one Scripture course; THL 3500; and a selection from among THL 5100, 5150, 5260, 5270, 5280, 5700.

THL 1050 is a prerequisite for all other courses in Theology and Religious Studies.

Women's Studies

Director:	Dr. Sheryl Bowen
Office:	478 St. Augustine Center, tel. 610/519-4798, or 130 St. Augustine Center
Website:	www.villanova.edu/womenstudies/
Course descriptions:	www.villanova.edu/courses/ws.html

The Women's Studies Program is an interdisciplinary program providing courses, a minor and a concentration in Women's Studies. It is open to students in all degree programs.

MINOR: an Integrating Seminar and five additional courses of which at least two must be from those listed below. The Integrating Seminar is required of all students and is offered every spring.

College of Liberal Arts and Sciences

CONCENTRATION: An Integrating Seminar and 7 additional courses of which at least 3 must be from those listed below. The Integrating Seminar is required of all students and is offered every spring.

COM 4150	Gender and Communication
ENG 2300	Women in Literature
HIS 2296	Changing Roles for Women in American Society, or HIS 3360 - European Women's History to 1800
PHI 2425	Philosophy of Women
PJ 5300	Race, Class and Gender
SOC 3500	Sociology of Gender Roles
THL 5850	Women in Religion and Society
WS 3050	Introduction to Feminist Analysis
WS 5000	Integrating Seminar
WS 3000	Independent Study
TOPICS	Courses in several departments are offered each semester. (Please see Master Schedule)

Writing and Rhetoric

Director:	Dr. Karyn Hollis
Office:	458 St. Augustine Center, tel. 610/519-7872
Website:	www.writingprogram.villanova.edu/concentration

The Concentration in Writing and Rhetoric provides students with a programmatic option for developing excellence in writing and speaking skills. The Concentration is open to students from all colleges in all majors.

Concentration: Students must complete 24 credit hours comprising 8 courses. All courses are to be Writing Enriched or Writing Intensive. Three courses in Writing Practice, one of which must be in non-fiction or journalistic writing: ENG 2000, 2010, 2015, 2020, 2021, 2045, 2050, 2060; COM 2070, 3950. Other courses meeting the Writing Practice requirement include: ENG 2005, 2006, 2007, 2008; COM, 2000, 2050, 2100, 2150, 2250, 2950. Two courses in theory of composition, rhetorical theory or critical theory: ENG 2040, 2045, 2250; COM 2210, 2310, 2540, 2550, 3800, 4150, 4200. One practicum course: ENG 2030, 2040, 2045, 2090, 2095, 2993; COM 2993. Two Writing Enriched or Writing Intensive English literature courses at the 2100 level or above. See website for additional requirements.

Minor: Students must complete 18 credit hours comprising 6 advanced courses, numbered 2000 or above. All courses are to be Writing Enriched or Writing Intensive. Three courses in writing practice, Groups A and B. Only one of the three courses may come from Group B. (A) ENG 2000, 2005, 2006, 2007, 2008, 2010, 2020, 2030, 2045,

2050, 2060, 2070, 2993; COM 2150, 3150, 3950. (B). COM 2000, 2100, 2050, 2250, 2959. Two courses in theory of composition, rhetorical theory or critical theory: ENG 2250, 2045; COM 2210, 2310, 2540, 2550, 3800, 4150, 4200. One Writing Enriched or Writing Intensive English literature course at the 2100 level or above. See website for additional requirements.

