GENERAL INFORMATION

Villanova University is a co-educational Roman Catholic institution, founded by the Order of Saint Augustine in 1842 in Villanova, Pennsylvania. A premier institution of higher education, Villanova provides a comprehensive education rooted in the liberal arts; a shared commitment to the Augustinian ideals of truth, unity and love; and a community dedicated to service to others.

A wide variety of undergraduate and graduate degree programs are offered through the University’s five colleges: the College of Liberal Arts & Sciences, the Villanova School of Business, the College of Engineering, the College of Professional Studies, and the College of Nursing, as well as the Villanova School of Law. With a total enrollment that surpasses 10,000 undergraduate, graduate and law students, Villanova is the oldest and largest Catholic university in the Commonwealth of Pennsylvania. It is located twelve miles west of the historic city of Philadelphia.

The College of Liberal Arts and Sciences at Villanova University offers more than twenty master’s degrees, more than forty pre- and post-master’s certificates, and a Ph.D. in Philosophy. The Office of Graduate Studies is located on the second floor of Kennedy Hall, and is open Monday-Friday from 9 am to 5 pm.

Office of Graduate Studies
Kennedy Hall
Villanova University
800 Lancaster Avenue
Villanova, PA 19085-1688
Telephone: 610-519-7090
Fax: 610-519-7096
gradinformation@villanova.edu

Complete information about Graduate Arts and Sciences programs and policies may be obtained at http://www.gradartsci.villanova.edu. Prospective and current students are advised to consult the web version of the catalog and the websites of the Office of Graduate Studies and individual programs for updated policies and additional information. Information about tuition rates and financial assistance may be obtained from the Office of Financial Assistance, 610-519-4010, and http://www.villanova.edu/enroll/finaid/.

Villanova University is an affirmative action institution, and it is the continuing policy of Villanova not to discriminate against any person on the basis of race, color, sex, religion, national origin, age, veteran status, non-job-related disability or any other basis prohibited by law.
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Fall 2014

Aug. 25    Classes begin
Aug. 29    Last day for late registration
Aug. 29    Last day for application for Language Examination, made at the office of the Department of Romance Languages and Literatures, 303 St. Augustine Center
Sept. 01   Labor Day - No Classes
Sept. 02    Last day for changes in registration status (drops, adds)

REFER TO “REFUNDS” IN CATALOG

Sept. 06   Language Examination, 1:00 P.M.
Sept. 10    Last day for application for comprehensive examination made at the office of the department chairperson
Sept. 15    Last day to apply online for graduation (myNOVA portal)
Oct. 11     Mid-term recess begins after last class (Saturday)
Oct. 20     Classes resume (Monday)
Nov. 12    Last day for Authorized Withdrawal without academic penalty (WX)

REFER TO “REFUNDS” IN CATALOG

Nov. 15    Recommended date for written comprehensive examination; hours and place determined by program
Nov. 25     Thanksgiving Recess begins after last class (Tuesday)
Dec. 01     Classes resume (Monday)
Dec. 08    Thesis/Dissertation (Title and Approval Pages are due in the Graduate Studies Office for those expecting to complete degree requirements by the end of the Fall Semester.) Students must then post on-line.
Dec. 11     Final Day of Classes
Dec. 12     Reading Day (Undergraduates only)
Dec. 13     Final Examinations (continues through December 19)
Jan. 30, 2015 Last day for submission of work to remove “N” grade for Fall 2014 Semester
Feb. 13, 2015 Last day for “N” grade conversion to be received by Registrar for Fall 2014 Semester
Spring 2015

Jan. 12        Classes Begin
Jan. 15        Last day to apply online for graduation (myNOVA portal)
Jan. 16        Last day for late registration
Jan. 16        Last day for application for Language Examination, made at office
                of the Department of Romance Languages and Literatures,
                303 St. Augustine Center
Jan. 19        Martin Luther King Day (No Classes)
Jan. 20        Last day for changes in registration status (drops, adds)

                   REFER TO “REFUNDS” IN CATALOG

Feb. 07        Language Examination, 1:00 P.M.
Feb. 09        Last day for application for comprehensive examination made at
                the office of the department chairperson
Feb. 28        Mid-term recess begins after last class (Saturday)
Mar. 09        Classes resume (Monday)
Mar. 13 to Apr. 03  Advisement for Summer and Fall Semesters. Check MyNova for
                   registration date.
Mar. 07        Recommended date for written comprehensive examination; hours
                and place determined by program
Apr. 01        Last day for Authorized Withdrawal without Academic Penalty (WX)
                   REFER TO “REFUNDS” IN CATALOG
Apr. 01        Easter Recess begins after last class (Wednesday)
Apr. 07        Classes Resume
Apr. 24        Thesis/Dissertation (Title and Approval Pages are due in the
                Graduate Studies Office for those expecting to complete degree
                requirements by the end of the Spring Semester.) Students must
                then post on-line.
Apr. 30        Final Day of Classes
May 01         Reading Day (Undergraduates only)
May 02         Final Examinations (continues through May 08)
May 16         Diploma Recognition Ceremony
May 17         Commencement Exercises
June 26        Last day for submission of work to remove “N” grade for Spring
                2015 Semester
July 10        Last day for “N” grade conversion to be received by Registrar for
                Spring 2015 Semester
Graduate Studies—Liberal Arts and Sciences

Administration

Interim Graduate Dean
CHRISTINE KELLEHER PALUS, Ph.D.

Director of Graduate Operations
SUSAN JACOBS, M.A.

Programs

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<td>English</td>
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<td>Hispanic Studies</td>
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<td>History</td>
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<td>Mathematics and Statistics</td>
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<td>Philosophy</td>
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<td>Political Science</td>
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<td>Psychology</td>
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<td>Public Administration</td>
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<tr>
<td>Theology and Religious Studies</td>
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GAR: Garey Hall
MEN: Mendel Hall
SAC: Saint Augustine Center for the Liberal Arts
STM: Saint Mary’s
TOL: Tolentine Hall

Graduate Studies Office

The office of Graduate Studies—Liberal Arts and Sciences is located on the 2nd floor of Kennedy Hall. The telephone number is (610) 519-7090 and the fax number is 610-519-7096. The main email address is: gradinformation@villanova.edu.

Admissions Committee

The department’s Graduate Committee, the Dean of Graduate Studies, and the Director of Graduate Operations comprise the Admissions Committee.
Villanova University

VILLANOVA UNIVERSITY
MISSION STATEMENT

Villanova University is a Catholic Augustinian community of higher education, committed to excellence and distinction in the discovery, dissemination and application of knowledge. Inspired by the life and teaching of Jesus Christ, the University is grounded in the wisdom of the Catholic intellectual tradition and advances a deeper understanding of the relationship between faith and reason. Villanova emphasizes and celebrates the liberal arts and sciences as foundational to all academic programs. The University community welcomes and respects members of all faiths who seek to nurture a concern for the common good and who share an enthusiasm for the challenge of responsible and productive citizenship in order to build a just and peaceful world.

Enduring Commitments

In pursuit of this mission, we commit ourselves to academic excellence, to our values and traditions, and to our students, alumni and the global community.

To foster academic excellence, we:

- Create a diverse community of scholars, united and dedicated to the highest academic standards;
- Emphasize the liberal arts and sciences as our foundation and foster in our students active engagement, critical thinking, life-long learning and moral reflection;
- Concern ourselves with developing and nurturing the whole person, allowing students, faculty and staff to grow intellectually, emotionally, spiritually, culturally, socially and physically in an environment that supports individual differences and insists that mutual love and respect should animate every aspect of university life;
- Encourage interdisciplinary research, teaching and scholarship;
- Affirm the intrinsic good of learning, contemplation and the search for truth in undergraduate and graduate education;
- Support a curriculum that encourages both a global perspective and an informed respect for the differences among people and cultures.

To honor our values and tradition, we, as a Catholic University:

- Believe that the dialogue between faith and reason drives the pursuit of knowledge and wisdom, and fosters St. Augustine’s vision of learning as a community ethos governed by love;
- Seek to understand, enrich and teach the Catholic intellectual tradition through our curricula, scholarship and activities in ways that engage diverse religious, intellectual and cultural traditions in a vigorous and respectful pursuit of truth and wisdom in every area of humanity;
Graduate Studies

- Provide opportunities for students, faculty and staff to seek guidance from Catholic intellectual and moral traditions, while always welcoming people from all faiths, cultures and traditions to contribute their gifts and talents to our mission;
- Respect and encourage the freedom proposed by St. Augustine, which makes civil discussion and inquiry possible and productive;
- Look to the Order of St. Augustine to preserve our Augustinian character, by showing appropriate preference to Augustinians in faculty and staff appointments, and by welcoming their presence in influence in our university community.

To serve our students, alumni and global community, we, as an Augustinian University:

- Encourage students, faculty and staff to engage in service experiences and research, both locally and globally, so they learn from others, provide public service to the community and help create a more sustainable world;
- Commit to the common good, and apply the knowledge and skills of our students and faculty to better the human condition;
- Encourage our students and faculty to pursue virtue by integrating love and knowledge, and by committing themselves to research and education for justice, with a special concern for the poor and compassion for the suffering;
- Respect a worldview that recognizes that all creation is sacred and that fosters responsible stewardship of the environment;
- Include our alumni as an integral part of the Villanova community;
- Value highly our relationship with neighboring communities, especially Radnor Township and the City of Philadelphia.
OBJECTIVES
The graduate programs seek to integrate general education, cultural improvement, and professional excellence.

The aims of these programs are:

- To extend and deepen knowledge by scholarly research;
- To assist those who wish to secure specialized training in order to improve their occupational competency;
- To supply the need of advanced training for special purposes, especially in the fields of teaching and other human services;
- To offer the graduate student the opportunity to join with the faculty of the University in the common pursuit of learning wherein the students are encouraged to develop according to their individual capacities and to learn to live and work together in a community of scholars.

DEGREE PROGRAMS
Doctorate of Philosophy in Philosophy.


Master of Public Administration. Two degrees are also available delivered in an online environment through our partnership with University Alliance. There is a separate handbook for these programs. Two degrees are also available delivered in an online environment through our partnership with University Alliance. There is a separate handbook for these programs.

RECOGNITION
The various courses of study are approved by the Department of Public Instruction of the Commonwealth of Pennsylvania. The University is accredited by the Middle States Association of Colleges and Secondary Schools.

ACADEMIC INTEGRITY
Academic integrity lies at the heart of the values expressed in the University’s mission statement and inspired by the spirit of Saint Augustine. When one comes to Villanova, one joins an academic community founded on the search for knowledge in an atmosphere of cooperation and trust. The intellectual health of the community depends on this trust and draws nourishment from the integrity and mutual respect of each of its members. The university’s full policy and related procedures should be read on the VPAA web pages: http://www.villanova.edu/vpaa/office/facultyservices/policies/integrity/policy.htm.
ACADEMIC PROBATION
All Graduate students are required to maintain a grade-point average of at least 3.0, and cannot be approved for the comprehensive examination or graduation unless this average has been maintained. Students whose GPA falls below 3.0 are notified by email that they are on academic probation, and are given either one additional semester if a full-time student, or up to nine additional credits if a part-time student, to bring their GPA up to 3.0; if they fail to do so, they are dismissed from the university. It is possible that a student offered up to nine credits to bring the cumulative GPA back above 3.0 achieves a grade or grades during their probationary period that is so low it becomes mathematically impossible for them to rise above 3.0 in additional credits. In those cases, the students are dismissed before nine credits are taken. Students who succeed in raising their GPA above 3.0 for one or more semesters after being on academic probation, but who in a later semester fall below a 3.0 GPA for a second time, will be dismissed from the university.

In some cases, if a student's cumulative GPA has fallen so far below a 3.0 GPA that their chances of rising above 3.0 in one additional semester of work or in up to nine additional credits, is impossible, these students may also be immediately dismissed from the university before being placed on probation.

Students are not required to repeat courses in which the grade of F has been received unless the courses are specifically required by their graduate program. The grade of F, however, is computed in the cumulative GPA, always listed on the transcript and jeopardizes a student’s academic standing. If a student who holds a graduate assistantship, tuition scholarship or fellowship is placed on academic probation, the award is automatically rescinded.

ADMISSION
All applicants must hold a bachelor’s degree from an institution accredited by one of the regional accrediting agencies and must have completed the undergraduate prerequisites for graduate study in their proposed program. These prerequisites are detailed on each program’s web pages under the admission requirements.

Applicants in their last year of undergraduate study at the time of application should provide a transcript of all courses completed to date. An official final transcript must be submitted to the Graduate Dean’s Office listing the degree received and the date the degree was conferred. Students admitted to the graduate program should follow up by providing an official transcript prior to the start of their first graduate course.

APPLICATION PROCESS
Applicants must use the online application available on the websites of Graduate Studies and individual programs. For details on application requirements and deadlines, see www.gradartsci.villanova.edu if you have any questions about the application process or your application status, please feel free to contact Graduate Studies.
APPEALS PROCESS
Occasionally, situations arise in which a graduate student in the College wishes to appeal a decision rendered by the Graduate Studies Office or a standing policy that directly affects him/her in some way. This could arise in a number of contexts, including:

- Request for transfer credits
- Request for a time extension to remove an Incomplete (“N”) grade
- Request for a waiver of the “Application to Graduate” deadline
- Request for extension of the 6-yr time-to-graduate requirement
- Request for waiver of Comprehensive Exam deadline
- Request to take a course overload (> 9hrs/semester)
- Request for extension of deadline to “DROP/ADD” courses or to withdraw (WX”) courses
- Dismissal from a graduate program for violations of the academic integrity code or the university’s standards of conduct

Students wishing to appeal a decision should submit a formal appeal in writing to the director of his/her graduate program, carefully stipulating the reasons for the appeal. Supporting documentation may be necessary for some appeals.

The graduate director will review the student’s appeal following the program’s own standard practices in a timely fashion, and submit its formal recommendation to the Graduate Dean. The Dean will review the appeal and the program’s recommendation and will contact the student with a final decision, copying the Chairperson and/or program Director of the graduate program involved. In reaching this decision, the Graduate Dean will be most concerned with any perceived failures in due process that might have occurred to ensure fair and consistent treatment of all students.

AUDIT
If students desire to AUDIT courses and not receive credit, they are required to submit an application, with the application fee, and furnish the same records as students who are applying for degree credit. Certain departments do not permit students to audit courses, please check with the department you are interested in for details. Additionally, adding the course as an audit is only possible if space permits. The student who has been granted audit status will not be responsible for the assignments and examinations required in the course. Although no credit or grade is received, the same tuition and fees are charged for audit as for credit courses. The regulations applicable to changes in registration status (drops & adds) also apply to audit students.

CHANGES IN REGISTRATION STATUS
Students should confer with the chairperson of their major department prior to the time of registration to be reasonably certain that they are qualified for the courses for which they expect to enroll. All changes in registration status (except complete withdrawal from the program) must be recommended by the student’s chairperson and requested in writing by the student as per the dates listed in the Academic Calendar. Students who have completely withdrawn from the program may not resume their studies unless they have been
formally re-admitted. Students who withdraw without approval will receive F grades. Students who have been admitted to Graduate Studies must register during the period announced in the Graduate Studies Catalog. The student needs the advice and approval of his/her chairperson/program director or advisor before officially enrolling in courses. Finally, except for Counseling (CHR) students, a student must seek formal permission from his/her graduate program and the Graduate Dean to enroll in 12 credits in the fall or spring semesters, for more than 6 credits in the summer. Students requesting an overload should have at least a grade point average of 3.50.

COMPLAINTS ABOUT GRADES AND FACULTY PERFORMANCE
Villanova University’s policy and procedure regarding complaints about grades and faculty performance are explained in detail at:
http://www.villanova.edu/vpaa/office/studentservices/policies/gradeappeals.htm

DISCLOSURE OF STUDENT RECORDS
Villanova, in accordance with the Family Education Right and Privacy Act (FERPA) of 1974 has adopted a student records policy to address the following issues: (1) disclosure of directory information; (2) confidentiality of identifiable information; and (3) student rights to inspect, review, and seek amendment of their records. The policy is available at:
http://www.villanova.edu/vpaa/office/studentservices/policies/disclosure.htm

DISMISSAL
There are a variety of circumstances that could lead to a student's dismissal. Please see the policies on academic probation, student code of conduct and academic integrity for more details. Once a student has been dismissed, he or she is permitted one appeal. The student should have a valid reason to appeal dismissal such as medical or other extenuating circumstances that would cause the university to consider allowing an exception to the policy to be made. Students wishing to appeal a dismissal decision should put the request in writing and first address it to their program director. The program director will then review the request with the members of the department and forward it to the Graduate Dean. The Graduate Dean will consider the appeal and the department's recommendation and make a decision. Once the decision is communicated to the student in writing, no further appeals will be considered.

DROP, ADD AND REFUND POLICIES
Students in on-campus programs who wish to drop or add a course must do so during the drop/add period at the beginning of the semester. The dates of the drop/add period are indicated in the academic calendar. It generally ends 7 days after the start of classes. New students should complete a drop/add form (available from their department), which they give to their graduate program director or department chairperson for approval; returning students may drop or add courses themselves, using their registration PIN.
Students may not add a course after the end of the drop/add period. In order to drop a course after this period, they must request an authorized withdrawal. See Withdrawal from a Course.
Students who drop a class on or after the first day of classes will not receive a 100% refund of tuition. They are liable for tuition charges for each course as follows:

- Up to the first week, the student will receive a refund of 80%
- Up to the second week, the student will receive a refund of 60%
- Up to the third week, the student will receive a refund of 40%
- Up to the fourth week, the student will receive a refund of 20%
- Beyond the fourth week, no refund will be available

For additional information regarding refunds, please refer to the Bursar’s Office.

**FULL TIME AND HALF TIME ENROLLMENT STATUS**

*Full-time Master’s students are expected to complete all the requirements for their degree in two academic years. All students pursuing Master’s degrees must complete their degree requirements within a six-year time period.*

Effective Spring 2010, the minimum credit load for full-time status is 6 credits/fall or spring semester, 3 credits in the summer. Students in Graduate Arts and Sciences may also be considered full-time if their credit load in a semester falls below this minimum but they meet any of the following conditions:

1. The student is a graduate assistant or tuition scholar. Graduate assistants and tuition scholars must be enrolled in at least one course, which may be credit-bearing or non-credit-bearing. Note that students in master’s degree programs are not permitted to hold an assistantship or scholarship beyond the period of two academic years.
2. The student is completing the program within the normal two-year full-time period of study and the department chair/program director confirms the status.
3. The student is enrolled in Thesis (3 cr) or Dissertation (3 cr) CSC 9025 (Grand Challenges of Computing) (3 cr), or CSC 9020 (Independent Study) (3 cr).
4. The student is enrolled in Thesis Continuation (0 credit), Dissertation Continuation (0 credit), or CSC 9021 (Independent Study Continuation) (0 cr), with the approval of the program director and Graduate Dean’s office.
5. Effective Fall 2010, Master’s level students may enroll as full-time students in Thesis Continuation or Independent Study Continuation for a maximum of two terms.
GRADUATE GRADING SYSTEM

Grades are recorded at the end of each semester or summer session. Grades are available on MyNova as soon as they are posted by the faculty. Students who require a printed grade report should contact the Registrar office. Any inaccuracy must be reported in writing to the Registrar immediately.

The work of the student is graded according to the following scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Outstanding</td>
</tr>
<tr>
<td>A–</td>
<td>C</td>
</tr>
<tr>
<td>B+</td>
<td>F</td>
</tr>
<tr>
<td>B</td>
<td>S</td>
</tr>
<tr>
<td>B–</td>
<td>U</td>
</tr>
<tr>
<td>WX</td>
<td>Approved Withdrawal</td>
</tr>
<tr>
<td>N</td>
<td>Incomplete</td>
</tr>
<tr>
<td>AU</td>
<td>Audit</td>
</tr>
<tr>
<td>IP</td>
<td>In Progress</td>
</tr>
<tr>
<td>Wx</td>
<td>Approved Withdrawal</td>
</tr>
</tbody>
</table>

Students are not required to repeat courses in which the grade of F has been received, unless the courses are specifically required by the program in which they are enrolled, the decision resting with the chairperson of their major department. However, the “F” grade is computed in the cumulative average. Grades of S and U are not calculated in a student's cumulative average.

The Wx grade may be given only by the Dean of Graduate Studies. The Wx grade indicates approved withdrawal from a graduate course without academic penalty; the parameters governing possible financial refunds are described in the REFUNDS section of this Catalog. The IP grade is reserved for thesis and dissertation courses and CSC 9020, 9021 only.

After the dates stipulated in the Academic Calendar in this Catalog, only officially documented, substantive non-academic reasons (such as prolonged serious illness or significant employment difficulties) will be considered sufficient to receive a Wx grade (See “Withdrawal from a Course” section on page 23). No Wx grades will be granted for purely academic reasons after the deadline. The same principle applies to requests for changes from letter grade to audit (AU) status.

Grades are part of the student’s permanent record. Typically, no changes other than N grades can be made. These grade changes must be completed by the dates listed in the Academic Calendar in this Catalog.

In graduate study, the student is expected to do more than pass the required courses. In addition, students must maintain a specific average. This average, known as the grade-point average, derived from the grades and credit hours of the courses taken, is computed by multiplying the number of credits for each course the student has attempted by the authorized quality points for the grades received and dividing the total quality points by the total credit hours attempted. The grade A merits 4 quality points; A–=3.67; B+=3.33; B=3.00; B–=2.67; C+=2.33; C=2.00; F=0; N=0.
INCOMPLETE GRADES AND CHANGE OF GRADES

Incomplete Grades
Instructors may give students who do not complete all the academic assignments for a course a grade of Incomplete (N), provided they have discussed the missing assignments with the student and formulated a plan for the completion of the work. The N grade automatically converts to an F grade if the work is not completed and submitted to the instructor within one month’s time from the end of the term.

Change of Grade
Students receiving an incomplete (N grade) at the end of a semester must submit the missing academic work to their instructor within a month from the end of the semester. The instructor has two weeks to grade the work. When the work is graded, the professor should submit a change of grade request to the department chairperson and Dean of Graduate Studies for their approval. The official deadline dates are listed for each semester in the Academic Calendar.

Extensions
Requests for additional time to complete course requirements beyond the deadline must be submitted using the Extension for Incomplete Grades form found online. The form must indicate the expected date for the completion of the work. The request requires the approval of the professor, the graduate director or chairperson of the student’s department, and the Dean of Graduate Studies. The Dean’s office will notify the Registrar and the student’s grade will reflect an “N” until the approved deadline date. The Dean of Graduate Studies will not approve more than three extensions.

Conversion of N grade to NF
If an extension is not granted, the grade originally assigned to the student will convert to an “NF” grade once the official deadline for change of grade has passed. This “NF” will be calculated in the student’s grade point average as an “F” grade.

LEAVE OF ABSENCE
Students who plan to leave the University on a temporary basis should request a Leave of Absence (a leave is not necessary for one semester off). Official leave of absence from the University must be authorized by the Graduate Dean. Students who are unable to take courses for three or more consecutive terms (including summer terms) should apply for a leave of absence. A letter explaining the reasons for the request, and stating the expected time when studies will be resumed, should be sent to the director of the student’s graduate program, who will forward it to the Graduate Dean with his or her recommendation for a final decision. If the student does not return to the University within the time originally requested (normally no longer than a year), the student will be considered as having withdrawn from the University. Students who take a leave of absence are still expected to complete the requirements for the degree or certificate within six years from the date they first enrolled at the University.
NON-ACADEMIC PERFORMANCE EXPECTATIONS
It is expected that graduate students in the College will maintain a consistently high level of professional behavior beyond that stipulated in their academic pursuits (e.g., minimum GPA). It is assumed that students will treat faculty, staff, and fellow students with respect, and their behavior should at all times reflect standards of professional excellence commensurate with their post-baccalaureate status and the values and principles of the professions to which they aspire. Severe or repeated violations of reasonable performance expectations may result in dismissal from the university.

NON-DISCRIMINATION
Students are selected wholly on the basis of individual merit. The University does not discriminate against any students or applicants seeking admission on the basis of their race, color, national or ethnic origin, religion, or sex.

SEXUAL HARRASSMENT
Cases of grade complaints or faculty performance complaints which may involve sexual harassment come under the University’s Sexual Harassment Policy. The University encourages its members to attempt informal resolution of complaints of sexual harassment. The University has many offices and individuals who may be able to provide counseling on a confidential basis for a person who believes that he or she is the victim of sexual harassment. The departments of Multicultural Affairs, Counseling Center, Campus Ministry, Human Resources, Student Life, and the like are staffed with caring and experienced specialists who may be able to help resolve concerns on an ad hoc and confidential basis. The Complaint Officer is also a resource person who may assist in informal resolution of a complaint, including through facilitated communication between the complainant and respondent. In cases where a person is unable to resolve a problem of sexual harassment informally, or wishes to make a formal complaint, she or he should submit a formal, written complaint, utilizing the University’s standard form, to the University Complaint Officer. The University’s policy and procedure are explained in detail at http://www.villanova.edu/hr/policies/sexualharrassment/process.htm

TIME TO COMPLETE DEGREE
Students in the on-campus Masters and Certificate programs must complete their degree requirements within a six-year time period from the first semester of enrollment (in any admitted status).

TRANSFER OF CREDIT
From another Institution:

- Requests for transfer credit must be made at the time of application.
- Students accepted into a graduate degree program may receive transfer credit for up to a maximum of 6 credits (usually 2 courses) taken at another accredited higher education institution.
- The courses must be graduate-level, and must have been taken within the past six years. A graduate course used to complete an applicant’s
undergraduate degree at another institution may not be transferred and used to complete a graduate degree at Villanova.

- Only courses with grades of B or better will be considered.
- Only applicants accepted as matriculated students may be approved for transfer of credits.
- Transfer credits are not accepted for a non-degree certificate program.
- When requesting transfer credits, the applicant should submit the following materials to the director of the graduate program: 1). the relevant official transcripts (regardless of whether a degree was earned), and 2). course descriptions and syllabi.
- Students already enrolled in a graduate program at Villanova University who wish to take a graduate course at another institution for credit toward the graduate degree here must obtain written approval from the Graduate Program Director and the Dean before the course is taken. No transfer credit will be approved for requests received after the course has been taken.
- This policy does not apply to graduate courses taken at Villanova University by Villanova undergraduates.

From another Villanova Master’s Program:
An individual who has already earned a Master’s degree at Villanova who seeks to earn a second Master’s degree at Villanova (see Earning a Second Master’s Degree) may request permission to apply some of the credits earned in the first program toward the requirements in the second program. No more than 12 credits from the first degree may be applied to the credits required for the second degree.

The request should be made at the time of application to the second Master’s program. The student must formally apply and be accepted for admission to the second graduate program and must obtain that program’s approval for the courses to be “accepted” from the other degree because certain course credits (e.g., internships) may not be sufficiently relevant to the second degree. That is, the second program will determine which courses from the first program, up to a maximum of 12 credits, will be accepted toward the second Master’s degree. Finally, any specific requirements beyond coursework in the second program (e.g., comprehensive exams or a thesis) must be completed. If approved by the program director, the request should be sent by the Chair or Program Director to the Dean’s Office.

UNDERGRADUATES IN GRADUATE COURSES

Eligibility
Villanova undergraduates may take graduate courses in the College of Liberal Arts and Sciences, provided they meet the following standards set down by the College: they must have senior standing (in terms of credits, not in terms of years at Villanova; certain exceptions exist for some programs), at least a 3.0 cumulative grade point average, and sufficient background and preparation for a graduate-level course. The student must obtain the appropriate permissions (advisor, dean, chair, course instructor); a special gold
card, obtainable from the departments, is used for these permissions. Faculty and program directors should ensure that proper advising is provided to undergraduate students with respect to taking graduate courses.

Course Limits
Undergraduates may take a maximum of two graduate courses in any semester. If an undergraduate takes a graduate class, in that semester s/he is limited to taking a maximum of 16 credit-hours of work.

Double-counting
Up to nine hours or nine credits of graduate courses taken by undergraduates may double count – both for the bachelor’s degree and for the master’s degree, whether or not a student is formally enrolled in a five year bachelor’s-master’s program. Any additional graduate courses taken while an undergraduate will count toward the undergraduate requirements and be included in the student’s undergraduate record, but will not be allowed to “transfer” or count toward a subsequent graduate degree. (Exceptions to this policy have been approved for certain five-year programs.) In order to count for graduate credit, the student must earn at least a B in the graduate course.

WITHDRAWAL FROM THE UNIVERSITY
Complete withdrawal should not be confused with changes in registration status. Requests for complete withdrawal from the University must be made by letter to the Dean of Graduate Studies. If students have completely withdrawn from a program, they may not resume their studies unless they have been formally re-admitted. Students who withdraw without approval will receive an F grade in any courses in which they are enrolled unless a grade of WX has been approved.

WITHDRAWAL FROM A COURSE
Until the final day for authorized withdrawal from courses listed in the Academic Calendar, a student may withdraw from a course without penalty and will receive the grade of “WX.” After that date, a student seeking authorized withdrawal without penalty must petition the Dean in writing. The Dean has the sole authority to grant withdrawals without academic penalty; however, requests for withdrawals after the published deadline will rarely be approved. Only officially documented, substantive non-academic reasons (such as prolonged serious illness or significant employment difficulties) will be considered sufficient to receive a WX grade. Note that a withdrawal without permission will receive a “W” grade, which is calculated as an “F” in computing one’s quality point average. If a student is given permission to withdraw from a course, the student is still responsible for the tuition costs as per the university’s refund policy.
FOR PROCEDURAL INFORMATION ON THE FOLLOWING TOPICS PLEASE VISIT OUR WEB PAGES:
http://www1.villanova.edu/villanova/artsci/graduate/facstaff.html

BACHELOR/MASTER PROGRAMS
COMPREHENSIVE EXAMINATIONS
DEGREE REQUIREMENTS
APPLYING FOR GRADUATION
EARNING A SECOND MASTER’S DEGREE
ENROLLING IN TWO PROGRAMS SIMULTANEOUSLY
INTERNATIONAL STUDENTS
LANGUAGE REQUIREMENT
QUANTITATIVE DEGREE REQUIREMENTS
STUDENT STATUS CATEGORIES
THESIS
TUITION AND FEES
TUITION REMISSION AND STIPENDS
WALKING THROUGH GRADUATION
FINANCIAL ASSISTANCE

ASSISTANTSHIPS, FELLOWSHIPS, and SCHOLARSHIPS
Assistantships, fellowships, and scholarships are available in most graduate programs. Graduate assistantships and tuition scholarships are awarded to cover one academic year of study. Assuming that the student meets the required academic and performance-related standards, these assistantships and scholarships are frequently renewed to cover a second academic year of study. Normally, graduate students in master’s degree programs are not permitted to hold a graduate assistantship or tuition scholarship beyond a two year period. All awards are made by the Dean of Graduate Studies. A limited number of assistantships are also offered by various university offices.

APPLICATION FOR FEDERAL FINANCIAL ASSISTANCE
All applicants must submit the current year’s Free Application for Federal Student Aid (FAFSA) at least two months prior to the first day of classes. Students who completed the current year’s FAFSA should use their U.S. Department of Education PIN number to file a Renewal FAFSA on the web. Students who did not file a FAFSA previously can file an original FAFSA via the web at www.fafsa.gov.

Write code 003388 on the FAFSA form to have your information released to Villanova University.

All applicants must complete the Villanova University Graduate Institutional Financial Aid Application available at our web site (www.finaid.villanova.edu) and return it to Villanova University, Office of Financial Assistance, 800 Lancaster Avenue, Villanova, PA 19085-1685 at least two months prior to the first day of classes.

- Once aid eligibility is determined, each applicant will receive a notice of aid eligibility from the Office of Financial Assistance.
- If you receive any credit against your tuition charge that is not reflected on your award letter, your aid may be reduced.

LOAN PROGRAMS AVAILABLE

Federal Unsubsidized Stafford Loan
The Federal Direct Unsubsidized Loan is available to students for up to $20,500 per academic year. The maximum amount of Unsubsidized Federal Direct Loan funds may not exceed the cost of attendance minus other sources of financial assistance. Interest will begin to accrue upon the first disbursement of the Direct Unsubsidized loan, however students are not responsible for interest payments until repayment begins 6 months after students graduate or depart from the program.

Once aid eligibility is determined, each applicant will receive a notice of aid eligibility from the Office of Financial Assistance. Included in the notice will be the amount
of Federal Direct Unsubsidized Loan that the student is eligible to receive. For additional information regarding the Federal Direct Loan program for graduate students, please visit the Office of Financial Assistance website or contact their office at

In person: 2nd floor Kennedy Building  
Phone: 610-519-4010  
Fax: 610-519-7599  
Email: finaid@email.villanova.edu  
Web: www.finaid.villanova.edu
Graduate Studies

STUDENT LIFE

Graduate students at Villanova are entitled to use all the student services available at the university, from the Career Services and Counseling Centers to the Davis Fitness Center and Student Health. A complete guide is available on the following webpage:

http://www1.villanova.edu/villanova/artsci/graduate/currentstudents/studentservices.html
Villanova University

Course Descriptions

BIOLOGY

Professors: Anil Bamezai, Ph.D., Immunology **Aaron M. Bauer, Ph.D., Vertebrate Morphology and Systematic Herpetology; Robert L. Curry, Ph.D., Ornithology and Behavioral Ecology; Russell M. Gardner, Ph.D., Chairperson, Endocrinology; Todd R. Jackman, Ph.D., Evolutionary Genetics and Herpetology; Janice E. Knepper, Ph.D., Molecular Biology and Virology; Joseph A. Orkwiszewski, Ph.D., Plant Enzymology; Michael P. Russell, Ph.D., Paleobiology, Evolutionary Ecology of Marine Invertebrates; Philip J. Stephens, Ph.D., Neuromuscular Physiology; R. Kelman Wieder, Ph.D., Plant Ecology and Biogeochemistry

Associate Professors: Ronald A. Balsamo, Ph.D., Plant Cell Biology, Physiology and Anatomy; Samantha K. Chapman, Ph.D., Ecosystems Ecology; Angela J. Di Benedetto, Ph.D., Molecular Biology, Genetics; Vikram Iyengar, Ph.D., Behavioral Ecology; Entomology; Chemical Ecology; John M. Olson, Ph.D., Metabolic and Muscle Physiology, Ecological Physiology; Louise A. Russo, Ph.D., Cellular Physiology, Molecular Biology; James W. Wilson, Ph.D., Bacterial Bioengineering; Dennis D. Wykoff, Ph.D., Genetics, Cell and Molecular Biology

Assistant Professors: J. Adam Langley, Ph.D., Microbial Ecology; Elaine Youngman, Ph.D., RNA Biology; Germ Cells and Fertility; Matthew Youngman, Ph.D., Aging, Innate Immunity, Stress Signaling

**Director, Graduate Program in Biology

GENERAL
The Department of Biology offers both a Master of Arts degree and a Master of Science degree. The M.S. is intended to give students significant experience in the design and execution of an independent research project whereas the M.A. program provides for more structured advanced studies in a wider variety of disciplines. Both programs may be pursued on a part-time or full time basis. The Department is committed to course rotation such that most graduate courses will alternate daytime offerings with evenings or weekends over a four year cycle to accommodate the needs of part-time students.

DEPARTMENTAL REQUIREMENTS
Graduates from accredited institutions who wish to work toward either the Master of Science or Master of Arts degree in Biology should have completed a minimum of 24 semester hours of undergraduate biology including genetics. Applicants should also have completed one year of calculus (or one semester of calculus and one semester of statistics) and one year, with laboratory, in the areas of general physics, general chemistry, and organic chemistry. The Department of Biology reserves the right to require certain undergraduate courses that may be deemed necessary.
Selection of applicants is based on a complete transcript of all academic records and a minimum of three recommendations, at least two of which should be submitted by biology professors. General Graduate Record Examination scores are required for all applicants. The Subject exam in biology may be recommended in some cases (contact Director). Generally, a B average in science is required.

**MASTER OF SCIENCE IN BIOLOGY (with thesis)**
The Master of Science is a thesis degree in which research conducted by the student under the direction of a thesis mentor culminates in the writing of a thesis and a defense of the thesis research. Thesis research may be undertaken in the areas of animal and plant physiology, vertebrate and invertebrate zoology, ecology, behavior, developmental biology, systematics and evolution, microbiology, cell and molecular biology, virology, immunology, parasitology, and genetics.

Specific requirements for all students in this program are the successful completion of a minimum of 30 credits which may include a maximum of 10 credits for research (BIO 9007, 9008, 9307, 9308, 9309). All students must take the 1 semester, 1 credit Research Prospectus course (BIO 8920), preferably in their first semester of graduate study. There is no language requirement. All full time students in this program are expected to attend the weekly Department of Biology Seminar.

For the first semester of study, each student will be assigned an academic advisor. Preferably before the onset of the second semester of graduate study, the student will have chosen a faculty member willing to serve as the student’s thesis mentor. The thesis mentor and two additional faculty, one of whom may be from outside the Biology Department, chosen by the student and the mentor will form an advisory committee for the student. The committee and the student will determine the plan of study for that student with regard to coursework, taking into account the nature of the thesis research and the long-term goals of the student. The committee will also be involved in evaluating the student’s progress toward successful completion of the degree.

Each student is required to prepare a written proposal of the anticipated thesis research, and to orally present and defend that proposal. Upon completion of the research and of the written thesis, the results of the thesis will be orally presented and defended. These two oral presentations and defenses fulfill the comprehensive examination requirement.

**MASTER OF ARTS IN BIOLOGY**
The Master of Arts in Biology is a non-thesis degree based on the successful completion of a minimum of 33 credits of graduate coursework at the 7000-level or above. All students pursuing this degree program must take the 1 semester, 1 credit Research Prospectus course (BIO 8920), preferably in their first semester of graduate study, at least one course with a seminar component/presentation (usually a *Special Topics, Advanced*
Villanova University

*Topics, or section of BIO 8900: Seminar*, and a minimum of 4 courses with laboratory other than Directed Research (BIO 9007, 9008). A maximum of 4 credits of Directed Research can be applied to the M.A. degree. Students who wish to specialize may concentrate their coursework in one of two areas of academic focus within the department: (1) Cell, Molecular and Developmental Biology and (2) Ecology, Evolution and Organismal Biology. M.A. students who take a minimum of 24 credits in one of these fields (please see department for lists of courses in each category) will receive a degree with a concentration in either area indicated on their transcript (e.g., “Master of Arts, Biology, with concentration in Cell, Molecular and Developmental Biology” or “Master of Arts, Biology, with concentration in Ecology, Evolution and Organismal Biology”). The department also offers certificate programs in these two areas. Each student must pass a comprehensive examination near the end of their studies. There is no language requirement. All full time students are expected to attend the weekly Department of Biology Seminar.

**CERTIFICATE AND ADVANCED CERTIFICATE IN BIOLOGY**

The Graduate Program in the Biology Department offers two certificate programs (Certificate and Advanced Certificate) for students who do not wish to pursue the full Master’s degree, at least initially. Students complete coursework primarily in one of two areas – Cell, Molecular, and Developmental Biology or Ecology, Evolution and Organismal Biology. See the departmental website for more information on courses listed in each subject area. The Certificate of Graduate Study in Biology requires a minimum of 16 credit hours of courses and at least three lab courses from the list associated with the subject area. The Certificate of Advanced Graduate Study in Biology requires a minimum of 24 credit hours of courses and at least four lab courses from the list associated with the subject area.

These programs are suitable for either full- or part-time students; matriculated students or students with non-matriculated status may enter the certificate program, the latter at the discretion of the Biology Graduate Committee. Students must maintain a 3.0 GPA in their program courses in order to receive a certificate. Such qualified students may subsequently apply for acceptance to either the M.A. or the M.S. degree programs.
DEPARTMENTAL PROGRAM
(Note that the semester of course offerings may change. Consult Website for current scheduling.)

BIO 7105 Vertebrate Ecology Ecology of vertebrates at individual and population levels, with emphasis on birds and mammals. Natural selection and adaptation; demography; life history ecology and evolution; behavioral ecology; speciation and species interactions; biodiversity and extinction; population viability; and endangered species management. Laboratory exercises, field trips, and student projects complement lecture material, with emphasis on collection and analysis of field data, and on familiarity with regional organisms, habitats, and conservation problems. (4 cr) Prerequisites: BIO 3012 or BIO 3255 or BIO 3405 or BIO 4305, or one equivalent course, or consent of instructor.

BIO 7151 Biogeochemistry For each of several elements of the periodic table, this course will focus on patterns of geological abundance, biotic and abiotic factors affecting solubility and therefore availability, and the role of each element in biological systems (deficiency, essentiality, toxicity). While the course will emphasize the essential elements, some attention will be paid to nonessential, but potentially toxic, metals. (2 cr)

BIO 7152 Biogeochemistry Laboratory The course will provide an in-depth coverage of methods for the collection, preservation, and storage of water and soil samples, as well as methods for the biological, chemical, and physical characterization of water and soil samples. (2 cr) Corequisite: BIO 7151.

BIO 7201 Ecosystem Ecology Examination of how living organisms interact and role of non-living entities such as climate, soil and atmosphere in large-scale processes. Includes coverage of topics such as biodiversity and ecosystem function, climate change, and link between ecosystem processes, community ecology and genetics. (3 cr) Prerequisite: course in ecology or permission of instructor.

BIO 7205 Comparative Physiology Physiological mechanisms used by vertebrates and invertebrates to survive in different environments. Laboratory includes an in-depth study in a selected area of animal physiology. (4 cr) Pre-req: A course in animal physiology or invertebrate zoology.

BIO 7321 Immunology Fundamental principles underlying innate and adaptive immunity. Cellular and molecular mechanism of development and function of immune cells including lymphocytes and mechanisms related to self-tolerance, antigen processing and presentation, lymphocyte activation, lymphocyte death and generation of cellular and humoral immune response. Consequences of malfunctioning of the immune response and clinical implications discussed. (2 cr)

BIO 7322 Immunology Laboratory Experimental methods used to analyze humoral and cell mediated immune responses. Qualitative and quantitative analyses of immune response, with a focus on understanding the rationale behind the methods used and their applicability. Develop skills in researching the literature related to cellular and molecular immunology. (2 cr) Corequisite: BIO 7321.

BIO 7331 Cancer Biology Study of characteristics, causes, genetic influences, and treatment strategies, with readings from primary literature. Emphasis on experimental approaches and analyses. (3 cr) Prerequisite: coursework in cell and/or molecular biology.
**BIO 7385 Global Change Ecology** Explores roles of ecology in documenting, responding, feeding back to, and mitigating human-caused changes to Earth's chemistry, geography and climate. Accompanying lab includes ecological techniques, such as carbon flux measurements, and develop independent research projects in the laboratory. (4 cr) Prerequisite: course in ecology or permission of instructor.

**BIO 7451 Behavioral Ecology** Advanced course in topics relating to animal behavior, including foraging, communication, sexual selection, parental care, and sociality. Emphasis on critical analysis of research papers from the primary literature. (3 cr) Prerequisite: undergraduate course in ecology or animal behavior or permission of instructor.

**BIO 7555 Molecular Ecology and Evolution** The application of molecular techniques to ecological and evolutionary questions. The lecture will emphasize the impact of molecular biology on advances in ecology and evolutionary biology. The laboratory will focus on applications of some molecular techniques in the examination of genetic variation present in field populations of field organisms. (4 cr) Prereqs: Undergraduates: genetics, molecular biology; Graduates: two of the following: genetics, evolution, ecology, or molecular biology. Occasional Offering

**BIO 7705 Plant Ecology** Ecological principles are considered at the plant species, population, community, and ecosystem levels of organization. Topics discussed in detail include ecological plant physiology, succession, productivity of ecosystems, soils, nutrient cycling, the effects of disturbances on ecosystem structure and function, and the major vegetation types in North America. Field and laboratory studies complement the lecture material. (4 cr) Occasional Offering

**BIO 7755 Plant Ecophysiology** Plant interactions with the biotic and abiotic environment. Lecture emphasizes plant Anatomical, Morphological, Physiological, and biochemical adaptations and acclimations determining plant and population survival, performance and distribution in dynamic ecosystems. Laboratory focuses on field methods and techniques culminating in student-driven, independent research projects. (4 cr)

**BIO 7805 Biostatistics and Experimental Design** Conceptualization of experimental design, hypothesis testing, execution of statistical analyses, expression of statistical results, and effective graphical presentation of quantitative data. Includes a written exercise emulating peer-reviewed journal publication. (4 cr)

**BIO 7905 Eukaryotic Microbiology** The structure, function, and taxonomy of representative free living and parasitic protozoa; methods of culturing protozoa and preparation of permanent slides in laboratory. (4 cr) Occasional Offering

**BIO 7940 Special Topics in Biology** Current topics in biology. Topics will be announced on a semester by semester basis. Specific information will be available in the Department office. (2 cr)

**BIO 7950 Special Topics in Cell, Molecular, and Developmental Biology** Current topics in cellular, molecular, and developmental biology. Topics will be announced on a semester by semester basis. Specific information available in the departmental office. (2 cr)

**BIO 7955 Biodiversity and Systematics** Philosophical, methodological and practical aspects of systematics, from species description to phylogeny reconstruction. The role of systematics in comparative biology and its applications in biogeography, molecular biology, and other fields are investigated. Methods of biodiversity assessment and the implications of biodiversity data for conservation. Emphasis on the practical aspects of data collection, computer-assisted phylogeny reconstruction, and taxon identification. (4 cr)
BIO 7960 Advanced Topics in Cell, Molecular, and Developmental Biology  
More intensive coverage of current topics in cellular, molecular, and developmental biology. Topics will be announced on a semester by semester basis. Specific information available in the departmental office. (3 cr)

BIO 7962 CMDB Laboratory  
Laboratory to accompany Advanced Topics or either 3-credit graduate course in Cell, Molecular, and Development Biology. Topic to be determined by term (1 cr)

BIO 7970 Special Topics in Ecology, Evolution and Organismal Biology  
Current topics in ecological, evolutionary and organismal biology. Topics will be announced on a semester by semester basis. Specific information available in the departmental office. (2 cr)

BIO 7980 Advanced Topics in Ecology, Evolution and Organismal Biology  
More intensive coverage of current topics in ecological, evolutionary and organismal biology. Topics will be announced on a semester by semester basis. Specific information available in the departmental office. (3 cr)

BIO 7982 EEOB Laboratory  
Laboratory to accompany Advanced Topics or other 3-credit graduate course in Ecology, Evolution, and Organismal Biology. Topic to be determined by term. (1 cr)

BIO 8051 Advanced Bacteriology  
Advanced bacterial genetics, including applications to medicine, biotechnology, and public health. Uses current literature and lab techniques to study molecular mechanisms driving lateral gene transfer in bacteria, the spread of antibiotic resistance and virulence factors, and methods for manipulating these mechanisms to analyze and engineer bacteria. (2 cr) Pre-req: A previous course in microbiology, molecular biology, or genetics is helpful, but not required.

BIO 8052 Advanced Bacteriology Laboratory  
Experimental studies in advanced bacterial genetics involving conjugative plasmid transfer, bacterial transformation, growth of bacterial viruses, construction of targeted mutations, and gene expression assays. (2 cr) Coreq: BIO 8051.

BIO 8101 Molecular Genetics  
Gene replication, transcription and translation; the regulation of gene expression; molecular aspects of gene recombination and gene interaction; critical analysis of research papers from the primary literature. (3 cr) Pre-req: Undergraduate biochemistry or molecular biology.

BIO 8151 Molecular Cell Biology  
Fundamental cellular processes; information storage and transfer; energy transformation and utilization, metabolic control mechanisms; control of the intracellular environment. (3 cr)

BIO 8171 Molecular Developmental Biology  
Current cellular and molecular approaches to cell and tissue differentiation as regulating organogenesis will be assessed by analyzing experiments from primary literature with the final goal of presenting the analysis in the form of a grant application. (2 cr) Pre-req: Genetics, and undergraduate course in cell, development, or molecular biology; the instructor may waive any of these prerequisites based on relevant work experience of the student.

BIO 8172 Molecular Development Lab  
Cell and tissue differentiation applied to organogenesis; review of primary literature with submission of a grant proposal. Labs: cell and molecular techniques; organ culture. Prerequisites: genetics; plus a cell, development, or molecular biology course; BIO 8295; or permission of instructor. Co-requisite: BIO 8171. (2 cr)

BIO 8205 Imaging Technology  
Introduction to imaging technologies, including light and fluorescent microscopy and scanning and transmission electron microscopy. Course covers both theoretical and applied microscopy. (4 cr)
BIO 8251 Endocrinology  A study of the molecular and physiological mechanisms by which hormones regulate homeostasis in animals. (2 cr) Pre-req: A course in animal physiology with laboratory.

BIO 8252 Endocrinology Laboratory  Selected experiments designed to illustrate fundamental principles in endocrinology. Biochemical and whole-animal experimentation will be included in the laboratories. (2 cr) Coreq: BIO 8251.

BIO 8295 Experimental Cell and Molecular Methods  Experimental and analytical skills to address questions in the field of cellular and molecular biology. Instruction in experimental methods to analyze DNA, RNA and proteins central to the functioning of a cell. Analyses at both the cellular and the subcellular level. Development of skills in experimental design and literature research related to cellular and molecular biology and presentation skills. Students will propose their own hypotheses and design experiments. (4 cr)

BIO 8321 Advanced Immunology  Sequel to introductory immunology, designed to develop a deeper understanding of concepts and mechanisms underlying innate and adaptive immunity. Emphasis on critical analysis of research papers from the primary literature. (3 cr) Prerequisite: BIO 7321 or another immunology course or permission of instructor.

BIO 8455 Molecular Evolutionary Genetics  Explores the use of molecular data to infer the histories of populations and species. Using DNA sequence data, fragment analyses, and whole genome analysis, we examine the theoretical foundations of molecular evolution such as the neutral theory of molecular evolution and Bayesian statistical methods as it applies to both population genetics and phylogenetics. The practical aspects of downloading, aligning and analyzing DNA sequence data from public databases are also an important part of this course. Includes student presentations and discussion of current and historical primary literature. (3 cr)

BIO 8555 Neurophysiology  Fundamental principles of neurophysiology including synaptic integration, sensory physiology and selected functional aspects of neurophysiology. The laboratory experiments will illustrate sensory, motor and integrative neurophysiology. (4 cr) Pre-req: A course in physiology or consent of the instructor.

BIO 8601 Pharmacology  A study of the chemical, pharmacodynamic, and physiological properties of drugs. Experimental and therapeutic drugs will be discussed. (2 cr) Pre-reqs: Organic chemistry and a course in physiology or permission of the instructor.

BIO 8602 Pharmacology Laboratory  Selected experiments will be designed to illustrate behavioral, pharmacodynamic, and organismal actions of drugs. (2 cr) Coreq: BIO 8601. Occasional Offering

BIO 8655 Recombinant DNA Technology  Fundamental methods of analysis most commonly used in modern molecular biology: Bacterial and phage vectors, gene cloning, DNA and RNA preparation and analysis, screening of recombinant libraries, polymerase chain reaction, protein expression and in situ hybridization. Theoretical underpinning and application to contemporary research problems. (4 cr) Pre-reqs: Organic Chemistry and undergraduate Genetics. Occasional Offering

BIO 8705 Virology  The structures and activities of animal, plant, and bacterial viruses; experimentation in handling, growing and assaying, with special emphasis on the tissue culture method. (4 cr)

BIO 8900 Seminar  Attendance at departmental seminars and student presentations in small seminar groups. (1 cr)
**BIO 8910 BS/MS Research Prospectus & Thesis**
Topics covered include library reference use, computer searching of scientific literature, presenting an effective seminar, preparing visual aids, word processing, publishing a scientific paper, and radiation safety and radioisotope use. Independent writing thesis proposal with guidance by research mentor. 
*Co-requisite: BIO 8920 Restricted to Juniors in the Combined BS/MS degree program in biology (2 cr) Fall semester*

**BIO 8920 Research Prospectus**
Topics covered include on-line searching of scientific literature, bibliography software, presenting an effective seminar, preparing visual aids, publishing a scientific paper, and radiation safety (1 cr) Fall semester

**BIO 8940 Advanced Topics in Biology**
Advanced topics in biology. Topics will be announced on a semester by semester basis. Specific information will be available in the Department office. (2 cr)

**BIO 9007 Directed Research I** Laboratory work and conferences dealing with a selected research problem. (2 cr) *Pre-req: Consent of chairperson.*

**BIO 9008 Directed Research II** Laboratory work and conferences dealing with a selected research problem. (2 cr) *Pre-req: Consent of chairperson.*

**BIO 9080 Thesis Continuation** This course is offered for 0 credits and is classified as a Thesis/Dissertation Continuation. This course is associated with a thesis in the Biology Department in the College of Sciences.

**BIO 9102 Graduate Biology Topics** Basic studies in biological fields relevant to the research of graduate thesis students. Requires approval of thesis committee and relevant course instructor. (2 cr)

**BIO 9103 Graduate Biology Topics** Basic studies in biological fields relevant to the research of graduate thesis students. Requires approval of thesis committee and relevant course instructor. (3 cr)

**BIO 9104 Graduate Biology Topics** Basic studies in biological fields relevant to the research of graduate thesis students. Requires approval of thesis committee and relevant course instructor. (4 cr)

**BIO 9303 BS/MS Graduate Thesis Direction** Laboratory and library work dealing with a specific research problem for Combined BS/MS degree program. (2 cr) Fall Semester

**BIO 9304 BS/MS Graduate Thesis Direction** Laboratory and library work dealing with a specific research problem for Combined BS/MS degree program. (2 cr) Spring semester

**BIO 9305 BS/MS Graduate Thesis Direction** Laboratory and library work dealing with a specific research problem for Combined BS/MS degree program. (3 cr) Fall semester

**BIO 9306 BS/MS Graduate Thesis Direction** Laboratory and library work dealing with a specific research problem for Combined BS/MS degree program. (3 cr) Spring semester

**BIO 9307 Thesis Research I** (2 cr)

**BIO 9308 Thesis Research II** (3 cr)

**BIO 9309 Thesis Research III** (5 cr)
The Villanova School of Business conducts several graduate programs. For additional information, please contact 610.519.4336 or visit http://www.villanova.edu/business/graduate/

**CHEMISTRY**

**Professors:** Robert M. Giuliano, Ph.D., Organic;  
Barry S. Selinsky, Ph.D., Biochemistry

**Associate Professor:** Temer S. Ahmadi, Ph.D., Physical; Eduard G. Casillas, Ph.D., Organic;  
Amanda M. Grannas, Ph.D., Analytical; Anthony Lagalante, Ph.D., Analytical;  
W. Scott Kassel, Ph.D., (Chairperson), Inorganic; Brian K. Ohta, Ph.D., Organic;  
Kevin P. C. Minbiole, Ph.D., Organic; Jared J. Paul, Ph.D., Inorganic;  
Jennifer B. Palenchar, Ph.D., Biochemistry; Deanna L. Zubris, Ph.D. Inorganic

**Assistant Professors:** Joseph W. Bausch, Ph.D., Organic; Aimee Eggler, Ph.D.,  
Biochemistry; Daniel A. Kraut, Ph.D., Biochemistry;  
Bryan Eigenbrodt, Ph.D., Analytical; Ryan Jorn, Ph.D., Physical

**DEPARTMENT REQUIREMENTS**

**MASTER OF SCIENCE IN CHEMISTRY**

A graduate program leading to the degree of Master of Science is offered by the Department of Chemistry. Students are eligible to be admitted as matriculated students if they have a bachelor’s degree in chemistry. Students with a degree other than a B.S. or B.A. in chemistry will be considered for admission on an individual basis. All applicants must take the Graduate Record Examination.

An applicant whose native tongue is not English must also furnish evidence of adequate proficiency in English by taking the TOEFL Proficiency Examination given by the Education Testing Service (Princeton, New Jersey).

Full-time students are required to take six graduate courses for a total of eighteen credits. Three of the following core courses are required for all graduate students: advanced analytical chemistry, advanced inorganic chemistry, advanced organic chemistry, advanced physical chemistry, and advanced biochemistry.

The student will plan and complete a research project under the guidance of the student’s research director. An advisory committee will evaluate the student’s progress during the first year. When a student has completed her/his research and his/her thesis is approved by the research director, the student will defend his/her thesis in a seminar presented to the Department.
A student who is employed full-time in the chemical industry may be permitted to take 4 additional graduate courses (12 graduate credits) in lieu of a thesis, one of these additional courses can be an additional core course.

Further information about the department can be found at: http://www1.villanova.edu/villanova/artsci/chemistry.html

DEPARTMENTAL PROGRAM

CHM 7100 Quantum Mechanics
Operators, Schrodinger Equation, one dimensional problems, harmonic oscillator, angular momentum, hydrogen atom, and scattering theory. (3 cr)

CHM 7200 Thermodynamics/Statistical Mechanics
Statistical methods, statistical thermodynamics, ensembles, partition functions, quantum statistics, kinetic theory of transport processes. (3 cr)

CHM 7222 Organic Structure Analysis
The currently most useful spectroscopic methods for the structural determination of molecular systems, including NMR (1D and 2D), mass spectrometry, infrared and ultraviolet-visible spectroscopies. (3 cr)

CHM 7392 Advanced Organic Chemistry
An expanded presentation of fundamental topics in organic chemistry: structure, bonding, stereochemistry, molecular orbital theory, reactive intermediates and reaction mechanisms. (3 cr)

CHM 7391 Advanced Inorganic Chemistry
An intensive survey of the basic principles of inorganic chemistry from the viewpoints of bonding, structure, and energetics. Topics include periodicity, symmetry, kinetics and mechanisms, spectroscopy, and acid-base theory. (3 cr)

CHM 7440 Advanced Physical Chemistry I
Classical thermodynamics, kinetics, electrochemistry, and solid state. (3 cr)

CHM 7494 Advanced Physical Chemistry II
Fundamentals of quantum mechanics, and statistical mechanics, with applications to small molecules, solid state and polymers. (3 cr)

CHM 7517 Environmental Chemistry
Focus on the chemistry affecting various “compartments” of the environment of Earth, including the lithosphere, hydrosphere, atmosphere and biosphere. Discuss impacts humans have had (and are having) on the environment. Critically analyze current environmental research and results.

CHM 7595 Advanced Analytical Chemistry
An intensive survey of selected principles and techniques in modern analytical chemistry. Topics may include basic statistics, sampling, complexation and extraction, equilibria, molecular and atomic spectroscopy, microscopy, electroanalysis, and chromatography. (3 cr)

CHM 7693 Advanced Biochemistry
An in-depth survey of the structure and function of the major classes of biological molecules: nucleic acids and DNA, protein structure, antibodies, oxygen-binding proteins, enzymes and enzyme kinetics, carbohydrate chemistry, glycoproteins, and cell membranes and receptors. Methods for studying biochemical systems will also be introduced. (3 cr)

CHM 7807, 7808, 7809—M.S. Research I, II and III (3 cr each)

CHM 7810—M.S. Thesis (3 cr)

CHM 8229 Organic Reactions and Synthesis
Discussion of organic reactions of synthetic importance stressing recent developments and mechanistic pathways. (3 cr)

CHM 8313 Solid State and Materials Chemistry
Emphasis on novel inorganic materials. Topics may include: solid state catalysis, semi- and superconductors, ceramics, batteries and energy sources. (3 cr)
CHM 8314 Physical Methods in Inorganic Chemistry A survey of principles and applications of methods such as nuclear magnetic resonance, vibrational and electronic spectroscopies, electron and scanning probe microscopes, and electrochemistry. (3 cr)

CHM 8315 Organometallics Examination of the bonding, spectroscopic properties and reactivity of a range of ligands and complexes. Reaction mechanisms and catalytic cycles will be emphasized. (3 cr)

CHM 8325 Introductory Polymer Chemistry Topics include: step- and chain-polymerizations, copolymerizations, molecular weight determination, polymer morphology, polymer testing and characterization, and current advances in polymer chemistry. (3 cr)

CHM 8410 X-Ray Crystallography Provides basis for theory and applications of X-ray crystallography. Topics include properties of crystals and X-rays, lattice symmetry, geometry of diffraction, calculations of diffracted intensities and amplitudes, Fourier series method, rotation method and Laue method. (3 cr)

CHM 8622 Metabolic Basis of Disease A study of the relationship between the metabolism of biomolecules, including carbohydrates, lipids, amino acids and nucleotides, and metabolic disease. Specific topics include diabetes, obesity, digestive disorders, and cancer. (3 cr)

CHM 8641 Chemical & Biochemical Imaging The course provides a survey of recent microscopy advances that push the boundaries of image resolution. Instruments and techniques that probe the inner workings of the cell at the level of individual molecules will be discussed, including confocal, TIRF, quantum dots, AFM, and PALM. (3 cr)

CHM 8663 - Biochemical Parasitology Brief overview of parasitology, the unique biochemistry associated with parasites, discussions of relevant therapeutic applications. The parasites responsible for malaria, toxoplasmosis, trichomoniasis, giardiasis, and African Sleeping Sickness will be studied. The biochemistry of host parasite interaction will also be explored. (3 cr)

CHM 8665 Enzymes Structural and mechanistic aspects of enzymes. Topics include chemical catalysis, steady state and pre-steady state kinetics, mechanisms, and biological relevance of specific enzyme systems. (3 cr)

CHM 8990 Graduate Chemistry Practicum Elective course for students seeking work experience in chemical industry. Departmental approval required for a specific work opportunity. (1 cr)

CHM 9080—Thesis Continuation (0 cr)

CHM 9221, 9222, 9223, 9224—Special Topics in Organic Chemistry I-IV Topics to be arranged. (3 cr each)

CHM 9331, 9332—Special Topics in Inorganic Chemistry I-II Topics to be arranged. (3 cr each)

CHM 9333 Chemistry and Industry A general overview of the chemical industry including the manufacture of basic chemicals, plastics, coatings, paper, pulp, surfactants, pesticides, adhesives, etc. (3 cr)

CHM 9441, 9442, 9443—Special Topics in Physical Chemistry I-III Topics to be arranged. (3 cr each)

CHM 9447 Computational Chemistry Focus on basic theories behind popular computational models (e.g., molecular mechanics, density functional theory) and their application to chemical problems. Hands-on experience using computational modeling software. (3 cr)

CHM 9551, 9552, 9553, 9554—Special Topics in Analytical Chemistry I-IV Topics to be arranged. (3 cr each)

CHM 9661, 9662, 9663, 9664—Special Topics in Biochemistry I-IV Topics to be arranged. (3 cr each)
Graduate Studies

CLASSICAL STUDIES

Department of Humanities

http://www.villanova.edu/artsci/classical

Department Chair, Humanities and Classical Studies: Kevin L. Hughes, Ph.D.,
Late Antique and Medieval Latin Literature, Religion, and Culture.

Classics Faculty: Valentina DeNardis, Ph.D., Latin Poetry, Greek and Roman Material
Culture, Gender in the Ancient World, The Classical Tradition.
Andrew G. Scott, Ph.D., Greek and Roman Historiography.
Alissa Vaillancourt, Ph.D., Hellenistic Poetry, Epigram, Genre,
Greeks in the Roman World.

Affiliated Faculty: Christopher Haas, Ph.D., Greek and Roman History,
Late Antiquity, Early Christianity, Byzantium, Ancient Caucasus, Alexandria.
Mark Shiffman, Ph.D., Greek Philosophy and Political Theory (especially
Plato, Aristotle, Plutarch).

Classical Studies at Villanova University is concerned with the languages, literatures,
thought, and culture of the Greco-Roman world from Homer in the eighth century B.C.
to St. Augustine in the fifth century A.D. The program offers two possible concentra-
tions: (1) Latin, (2) Greek and Latin.

Five-year Bachelor/Master’s Degree Program
This five-year program allows exceptional Villanova students to complete a bachelor’s
and a master’s degree in Classical Studies in five years. In the last year of undergradu-
ate study students take three graduate courses that count toward both their undergradu-
ate and graduate degree.

Admission Requirements
The primary prerequisite for entering the program is a B.A. degree with at least 24
credits in Classical Studies with a B average or better. Applicants must show evidence
that they are prepared to translate at least one of the classical languages at a graduate
level.

Tuition Assistance
Students intending to pursue full-time study are eligible to apply for a limited number
of tuition scholarships. Tuition reductions are available for secondary school teachers
and administrators.

Program Requirements
Students must complete thirty credit hours, consisting of twenty-four credits in Latin
(or Greek and Latin) and 6 credits in classical culture. A minimum 3.0 GPA is
Villanova University

required. Upon the completion of twenty-four credits, students take the Comprehensive Examination for the M.A. in Classical Studies. This examination tests the following areas: translation of Latin (or Greek and Latin), the History of Latin (or Greek and Latin) Literature, and Roman (or Greek and Roman) History. Students must also pass a translation exam of classical scholarship in French, German, or Italian.

Certificate In ‘Ancient Worlds’
Students may elect to complete an additional fifteen credit hours in courses on ancient cultures to earn a Certificate in ‘Ancient Worlds’ from the Graduate Program in Liberal Studies.
Graduate Studies

COURSE OFFERINGS
Below is a sampling of our curriculum. Please visit villanova.edu/artsci/classical for a full listing.

Classics Courses
CLA 7301 Greek Archaeology
CLA 7301 Roman Archaeology
CLA 7301 Pompeii & Herculaneum

Ancient Greek Courses
GRK 7250 History of Greek Literature
GRK 8150 Greek Historians
GRK 8250 Attic Orators
GRK 8350 Plato
GRK 8450 Homer
GRK 8550 Greek Tragedy
GRK 8551 Greek Comedy

Latin Courses
LAT 7150 Latin Prose Composition
LAT 7250 History of Latin Literature
LAT 7290 Rome 133 BC to 31 BC
LAT 7291 Rome 31 BC to AD 118
LAT 8051 Cicero
LAT 8150 Caesar
LAT 8250 Catullus
LAT 8350 Livy
LAT 8450 Tacitus
LAT 8550 Suetonius
LAT 9050 Roman Drama
LAT 9251 Vergil
LAT 9350 Ovid
LAT 9450 Horace
Communication concerns the creation, placement, and management of purposive messages for the realization of individual, organizational, and/or societal goals, while acknowledging the consequences and complexities of interacting with various audiences in various contexts. Our graduate programs focus on developing leaders capable of strategic and ethical thinking, speaking, writing and research on communication problems. To be effective leaders in the practice and study of communication, students learn to dynamically engage communication problems through a principled approach and are equipped with the methodological tools to evaluate the efficacy of the solutions they develop. The programs prepare students for careers or further graduate study in advertising, advocacy, consulting, corporate communication, health communication, human resources/relations, journalism, leadership, media management, new media, organizational communication, and public relations.

The department offers a program of study leading to a Master of Arts (M.A.) in Communication degree. The department also offers five Certificates of Graduate Study in the following areas: Communication & Critical/Cultural Studies; Journalism & New Media; Mediated Communication; Organizational Communication & Leadership; and Public Relations & Advertising. M.A. students typically satisfy the requirements of a Graduate Certificate en route to the M.A. degree and use a Certificate in one of the five areas toward a degree specialization tailored to meet their career and academic goals under the advisement of graduate faculty mentors. Students who do not wish to pursue the full Master’s degree, at least initially, may use a Certificate of Graduate Study as a post-baccalaureate stepping stone toward career advancement or further graduate study. Students who already have a Master’s degree may use a Graduate Certificate to enhance their graduate education with a communication specialization.
Admissions Requirements
Candidates for graduate study in Communication must have a minimum undergraduate GPA of 3.0, a degree in Communication, exposure to the communication discipline through a related field (e.g., English, Political Science, Psychology, Business, and Sociology) or significant communication-related work experience. For students who do not have sufficient exposure to the communication discipline or a communication profession, undergraduate coursework in communication may be required prior to admission to the program. In rare cases, there may be some exceptions to the above requirements.

Applicants must submit:
- A completed application
- All undergraduate and graduate transcripts
- Three letters of recommendation (only two letters required for a Graduate Certificate)
- GRE scores (Not required for a Graduate Certificate)
- A writing sample. Academic writing samples preferred, professional samples accepted
- A personal essay outlining academic and professional goals beyond the brief statement on the application (Not required for a Graduate Certificate)

Application Deadlines
Applications for admission into Certificate and Master of Arts programs are due May 1 for fall consideration and December 1 for spring consideration. Students are typically not admitted for summer matriculation. Applications for assistantships or tuition scholarships usually only offered to fall matriculates must be received by February 1 for full consideration.

Master of Arts Program Requirements
Core Courses. Communication theory and research are the foundation of graduate study in the department. After being oriented to graduate study within the program, students are required to engage coursework in strategic communication theory and at least one of the two required courses in methodology, qualitative or quantitative research methods in communication, prior to engaging any other coursework in the program.

Focal Courses. Upon completion of foundational coursework in the program, students engage focal courses in the discipline. As a discipline, communication focuses on the study and the practice of principled message negotiation within varied contexts. To ensure adequate exposure to these dimensions of communication, students complete two courses within each of the following focal areas: Principles, Practices and Contexts. Principles courses focus on the overarching philosophical, ethical, and methodological issues relevant to the study and practice of communication in multiple contexts. Practices courses focus on the strategic application of communication principles to the creation of messages within particular contexts. Contexts courses focus on the places, spaces, situations, and modalities within which principled communication has significant impact.
Completion of a Degree Capstone. To culminate studies toward the M.A. in Communication degree, students must complete a capstone experience by successfully completing either a comprehensive examination plus 5-6 additional elective course credits (students may opt to take two 1-credit courses along with Orientation (COM 8008) instead of a 3-credit elective course under the advisement of their graduate faculty mentor) or a written six-credit Master’s Thesis. The details of the capstone requirement are listed below.

Capstone Requirement Options

Non-thesis Option: After completing a minimum of 21 credits, students may apply to complete a written comprehensive examination. The examination includes questions from the following three areas: Strategic Communication Theory (COM 8100), either Qualitative Research Methods (COM 8001) or Quantitative Research Methods (COM 8002) and a third elective course. Students may be invited to orally defend their written responses in order to demonstrate sufficient competency.

Thesis Option: Students may apply for permission from the program to submit a written thesis and complete an oral defense as satisfaction of the capstone requirement. Work on the thesis will earn the equivalent of two courses (6 credits) toward the degree. The thesis project will be designed and completed under the supervision of an advisor, who must be graduate faculty in communication, and who is assisted by a committee of at least two other faculty members or professional consultants, one of whom must be from Communication. Students must have completed all required courses and a total of 21 credits and have formed a thesis committee approved by the program prior to registering for thesis credits.

In summary, the M.A. degree requires completion of at least 33 credit hours as follows:

- Required courses (10 hrs.):
  COM 8008 Orientation to Graduate Study (1 hr.) and
  COM 8100 Strategic Communication Theory (3 hrs.) and
  COM 8001 Qualitative Research Methods (3 hrs.) and
  COM 8002 Quantitative Research Methods (3 hrs.)

  Note: COM 8008, COM 8100 and either COM 8001 or COM 8002 must be completed prior to or concurrent with any other course

- At least two focal courses in each of the following areas (5-6 hours; students may opt to take two 1-credit courses along with Orientation (COM 8008) instead of a 3-credit elective course under the advisement of their graduate faculty mentor):
  Principles (focus on the overarching philosophical, ethical, and methodological issues relevant to the study and practice of communication in multiple contexts.)
  Practices (focus on the strategic application of communication principles to the creation of messages within particular contexts.)
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Contexts (focus on the places, spaces, situations, and modalities within which principled communication has significant impact.)

- Completion of Degree Capstone: either a comprehensive examination plus 5-6 additional elective course credits (students may opt to take two 1-credit courses along with Orientation (COM 8008) instead of a 3-credit elective course under the advisement of their graduate faculty mentor) or a written Master’s Thesis (6 credits).

Additional Notes:
- With program approval, students may substitute up to 2 graduate courses (up to 6 credits) from outside of Graduate Studies in Communication that productively complement program offerings.
- No more than 2 independent study courses (up to 6 credits) will be counted toward M.A. degree requirements;
- No more than 3 one-credit courses will be counted toward M.A. degree requirements including the required one-credit Orientation.
- Students pursuing a Masters degree are eligible to receive a Graduate Certificate. See the section on Certificate Programs for requirements and policies.
- Students undertaking the thesis option may use Thesis 1 & 2 to satisfy the requirement for focal courses in the three areas of Principles, Practices and Contexts with the Graduate Director's approval.

Master of Arts Program Courses
Core Courses
COM 8008 - Orientation to Graduate Study
COM 8100 - Strategic Communication Theory
COM 8001 - Qualitative Research Methods
COM 8002 - Quantitative Research Methods

Principles Courses
COM 8004 - Communication Directed Study
COM 8005 - Communication Special Topics
COM 8200 - Teambuilding & Small Group
COM 8207 - Organizational Communication
COM 8210 - Leadership Communication
COM 8211 - Communication & Identity
COM 8212 - Communication & Advocacy
COM 8301 - Strategic Public Relations
COM 8304 - Journalism
COM 8307 - Visual Communication & Culture
COM 8308 - Theories & Effects of Mass Com
COM 8309 - Public Opinion
COM 8310 - New Media
Practices Courses
COM 8004 - Communication Directed Study
COM 8005 - Communication Special Topics
COM 8102 - Persuasion & Advocacy
COM 8203 - Org. Research & Consulting
COM 8206 - Diversity & Organizing
COM 8208 - Public Communication Campaigns
COM 8300 - Public Relations Writing
COM 8302 - Advertising
COM 8306 - Media Production
COM 8320 - Digital Media Design
COM 8009 - Personal Promotion*
COM 8010 - Becoming an Academic*
COM 8011 - Health Promotion Messages*
COM 8314 - Photoshop*
COM 8315 - Video Shooting Lab*
COM 8316 - Audio Production*
COM 8317 - Basic Web Design*
COM 8318 - Developing Crisis Communication Materials*
COM 8401 - Special Topics in Qualitative Research*
COM 8402 - Special Topics in Quantitative Research*
COM 8403 - Special Topics in Applied Organizational Communication*

* One-credit seminar. May take two 1-credit courses along with Orientation (COM 8008) instead of a 3-credit elective course to fulfill degree requirements

Contexts Courses
COM 8003 - Internship in Communication
COM 8004 - Communication Directed Study
COM 8005 - Communication Special Topics
COM 8101 - Performance Studies
COM 8201 - Health Communication
COM 8204 - Conflict & Negotiation
COM 8205 - Intercultural Communication
COM 8209 - International Public Relations
COM 8303 - Mass Media Industries
COM 8305 - Media Literacy
COM 8319 - Cultural Studies
COM 8321 - Critical Studies in Advertising

Certificate Programs
The department offers Certificates of Graduate Study in the following five areas: Communication & Critical/Cultural Studies; Journalism & New Media; Mediated Communication; Organizational Communication & Leadership; and Public Relations & Advertising. For students who do not wish to pursue the full Master’s degree but who
seek a focused course of study, the Graduate Certificate can serve as a stand-alone option. For students pursuing a Master’s degree in Communication one of the Graduate Certificates can be used to focus and enhance your graduate education with a communication specialization. Students wishing to pursue more than one certificate may do so. However, only Core Courses (COM 8001, COM 8002, COM 8008, COM 8100) and one Required or Elective course may be counted toward multiple certificates.

**Certificate Program Requirements**

**Core Courses.** Communication theory and research are the foundation of graduate study in the department. After being oriented to graduate study within the program, students are required to engage coursework in strategic communication theory and one course in methodology, qualitative or quantitative research methods in communication, prior to engaging any other coursework in the program.

**Elective Courses.** In addition to completing COM 8008: Orientation to Graduate Study, COM 8001: Qualitative Research Methods, or COM 8002: Quantitative Research Methods, and COM 8100: Strategic Communication Theory, students complete any Required Courses and Elective Courses from any of the five Graduate Certificates in Communication as listed below. Students pursuing Certificates are able to take courses outside of the Communication department. However, two of the electives must be Communication courses.

**Communication & Critical/Cultural Studies**

Engages the critical study of communication and cultural practices and the social contexts of power within which discourses are produced, circulated, and consumed.

**Required:**

COM 8319 - Cultural Studies

**Electives (choose two):**

COM 8003 - Internship in Communication
COM 8004 - Communication Directed Study
COM 8005 - Communication Special Topics
COM 8101 - Performance Studies
COM 8204 - Conflict & Negotiation
COM 8212 - Communication & Advocacy
COM 8305 - Media Literacy
COM 8307 - Visual Communication & Culture
COM 8310 - New Media
COM 8321 - Critical Studies in Advertising
COM 8211 - Communication & Identity
COM 8401 - Special Topics in Qualitative Research*

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* One-credit seminar. May take two 1-credit courses along with Orientation (COM 8008) instead of a 3-credit elective course to fulfill degree requirements

**Journalism & New Media**
Engages the evolution and implications of reporting through digital communication from the key vantage points of users, consumers, producers (professionals and amateurs) and industries.

**Required:**
COM 8304 – Journalism
COM 8310 - New Media

**Electives (choose one):**
COM 8003 - Internship in Communication
COM 8004 - Communication Directed Study
COM 8005 - Communication Special Topics
COM 8101 - Performance Studies
COM 8102 - Persuasion & Advocacy
COM 8302 - Advertising
COM 8303 - Mass Media Industries
COM 8305 - Media Literacy
COM 8306 - Media Production
COM 8307 - Visual Communication & Culture
COM 8308 - Theories & Effects of Mass Com
COM 8309 - Public Opinion
COM 8321 - Critical Studies in Advertising
COM 8211 - Communication & Identity
COM 8212 - Communication & Advocacy
COM 8320 - Digital Media Design
COM 8321 - Critical Studies in Advertising
COM 8322 - Audience Analysis
COM 8009 - Personal Promotion*
COM 8011 - Health Promotion Messages*
COM 8314 - Photoshop*
COM 8315 - Video Shooting Lab*
COM 8316 - Audio Production*
COM 8317 - Basic Web Design*
COM 8401 - Special Topics in Qualitative Research*
COM 8402 - Special Topics in Quantitative Research*

* One-credit seminar. May take two 1-credit courses along with Orientation (COM 8008) instead of a 3-credit elective course to fulfill degree requirements

**Mediated Communication**
Engages the dynamic production, distribution, exhibition and consumption of communication by users, audiences and media organizations.

**Required:**
COM 8310 - New Media
or
COM 8305 - Media Literacy
AND
COM 8306 - Media Production
or
COM 8320 - Digital Media Design

**Electives (choose one):**
COM 8003 - Internship in Communication
COM 8004 - Communication Directed Study
COM 8005 - Communication Special Topics
COM 8101 - Performance Studies
COM 8211 - Communication & Identity

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**Com 8212** - Communication & Advocacy
**Com 8302** - Advertising
**Com 8303** - Mass Media Industries
**Com 8305** - Media Literacy
**Com 8306** - Media Production
**Com 8307** - Visual Communication & Culture
**Com 8308** - Theories & Effects of Mass Com

**Com 8309** - Public Opinion
**Com 8320** - Digital Media Design
**Com 8321** - Critical Studies in Advertising
**Com 8322** - Audience Analysis

**Com 8011** - Health Promotion Messages*
**Com 8314** - Photoshop*
**Com 8315** - Video Shooting Lab*
**Com 8316** - Audio Production*
**Com 8317** - Basic Web Design*
**Com 8401** - Special Topics in Quantitative Research*
**Com 8402** - Special Topics in Quantitative Research*

* One-credit seminar. May take two 1-credit courses along with Orientation (COM 8008) instead of a 3-credit elective course to fulfill degree requirements

**Organizational Communication & Leadership**
Engages communication as a process occurring within organizations, as well as the role of communication and leadership in structuring relationships, values, identities and cultures central to the organizing process.

**Required:**
**COM 8207** - Organizational Communication

**Electives (choose two):**
**COM 8003** - Internship in Communication
**COM 8004** - Communication Directed Study
**COM 8005** - Communication Special Topics
**COM 8101** - Performance Studies
**COM 8102** - Persuasion & Advocacy
**COM 8200** - Teambuilding and Small Group

**COM 8201** - Health Communication
**COM 8203** - Org. Research & Consulting

**COM 8204** - Conflict & Negotiation
**COM 8205** - Intercultural Communication
**COM 8206** - Diversity & Organizing
**COM 8211** - Communication & Identity
**COM 8212** - Communication & Advocacy
**COM 8011** - Health Promotion Messages*
**COM 8318** - Developing Crisis Communication Materials*
**COM 8401** - Special Topics in Qualitative Research*
**COM 8402** - Special Topics in Quantitative Research*
**COM 8403** - Special Topics in Applied Organizational Communication*

* One-credit seminar. May take two 1-credit courses along with Orientation (COM 8008) instead of a 3-credit elective course to fulfill degree requirements

**Public Relations & Advertising**
Engages theoretically based strategic communication designed to influence audience behavior in a variety of contexts.

**Required:**
**COM 8301** - Strategic Public Relations

and either
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COM 8208 - Public Communication Campaigns

or

COM 8300 - Public Relations Writing

Electives (choose one):

COM 8003 - Internship Communication
COM 8004 - Communication Directed Study
COM 8005 - Communication Special Topics
COM 8101 - Performance Studies
COM 8102 - Persuasion & Advocacy
COM 8200 - Teambuilding and Small Group
COM 8201 - Health Communication
COM 8207 - Organizational Communication
COM 8208 - Public Communication Campaigns
COM 8209 - International Public Relations
COM 8300 - Public Relations Writing
COM 8302 - Advertising
COM 8304 - Journalism
COM 8305 - Media Literacy
COM 8306 - Media Production
COM 8309 - Public Opinion
COM 8320 - Digital Media Design
COM 8321 - Critical Studies in Advertising
COM 8211 - Communication & Identity
COM 8212 - Communication & Advocacy
COM 8322 - Audience Analysis
COM 8009 - Personal Promotion
COM 8011 - Health Promotion Messages*
COM 8314 - Photoshop*
COM 8315 - Video Shooting Lab*
COM 8316 - Audio Production*
COM 8317 - Basic Web Design*
COM 8318 - Developing Crisis Communication Materials*

COM 8401 - Special Topics in Qualitative Research*
COM 8402 - Special Topics in Quantitative Research*
COM 8403 - Special Topics in Applied Organizational Communication*

* One-credit seminar. May take two 1-credit courses along with Orientation (COM 8008) instead of a 3-credit elective course to fulfill degree requirements

Additional Notes:
As part of the certificate program students may choose to do only one of the following:
3 one-credit courses in communication or in an approved related field
or
COM 8003 Internship in Communication
or
COM 8004 Communication Directed Study

COURSE DESCRIPTIONS

COM 8001 Qualitative Research Methods
Qualitative approaches to communication research: phenomenology, ethnography, rhetorical criticism, and semiotic analysis. Emphasis on the performative turn in ethnography and alternative forms of ethnographic writing. Primary work consists of semester-long original study. With Departmental permission, this course can substitute for Senior Project.

COM 8002 Quantitative Research Methods
Fundamentals of quantitative communication research. After reviewing the philosophy and practice of scholarly inquiry, students engage in research design and execution, thematic and statistical inference, and the presentation of research results. With Departmental permission, this course can substitute for Senior Project.
COM 8003 Internship in Communication
Internships at area businesses and organizations supervised by a faculty member. Graduate students may only take this course once.

COM 8004 Communication Directed Study
Individual research project in an advanced area of communication, conducted under the guidance of a faculty member.

COM 8005 Communication Special Topics
Contemporary topics in communication. Taught on an occasional basis to reflect critical and changing debates and inquiries in the discipline.

COM 8006 Thesis Direction I
Independent capstone research experience under the direction of a graduate faculty advisor. Satisfactory completion requires a successful defense of a completed research prospectus.

COM 8007 Thesis Direction II
Independent capstone research experience under the direction of a graduate faculty advisor. Satisfactory completion requires a successful defense of a completed research project.

COM 8008 Orientation to Graduate Study
Orients new students to graduate study in communication. (1 cr)

COM 8009 Personal Promotion in Communication
Provides useful information and competitive advantages in many areas of self-promotion in communication. (1 cr)

COM 8010 Becoming an Academic
Prepares Master’s students interested in academic professions, including college-level pedagogy and preparing and presenting research to academic audiences. (1 cr)

COM 8011 Health Promotion Messages
Guides students through process of planning and strategy development; developing and pretesting concepts, messages, and materials; implementing program, assessing effectiveness and making refinements. (1 cr)

COM 8100 Strategic Communication Theory
Grounds students in communication theory orienting them to theoretical and ethical issues involved in strategic discourse. Tracing historical and contemporary issues in the development of communication study, the course examines meaning-making and its consequences in various contexts.

COM 8101 Performance Studies
Examines performance across contexts: public to interpersonal, verbal to nonverbal, stage to everyday life. Uses performance, rhetorical, and cultural studies theory to experience the strategic nature of performance in aesthetic, political, interpersonal, organizational, and cultural contexts. Emphasizes both analyzing and creating performance.

COM 8102 Persuasion & Advocacy
Using the principles of persuasion from classical and contemporary rhetorical theory and criticism, students engage message analysis and construction; audience/situational analysis; and strategic oratory.

COM 8200 Teambuilding & Small Group
Theories of effective group communication; group development, cohesion, conflict management and diversity; strategies for building and maintaining teams, enacting leadership, constraints and opportunities for teams and leaders, organizational outcomes, and effective project management.

COM 8201 Health Communication
Examines interpersonal, organizational and mediated communication in various health domains. It includes a review of relevant health communication theory and methods to inform such areas as doctor/patient relations, public health campaigns and communications about health in organizing and organizations.
COM 8203 Org. Research & Consulting
Prepares students to understand and analyze organizations as researchers; prepares them to conduct consulting interventions in organizations as communication consultants.

COM 8204 Conflict & Negotiation
The role of communication in the development and management of conflict and negotiation; types of conflict, resolution strategies and power relationships. Applications may include intercultural/international conflict, conflict in organizations and conflicts between and among stakeholders.

COM 8205 Intercultural Communication
Historical and contemporary study of intercultural communication in interpersonal, organizational, and mass mediated contexts. Topics: cultural identity, ethnocentrism, culture and language, culture and the body, intercultural conflict, intercultural communication competence, and cultural adaptation.

COM 8206 Diversity & Organizing
Explores the relational, axiological and cultural implications of communication practices in the negotiation of difference and social identity as central to the organizing process.

COM 8207 Organizational Communication
Centrality of communication to organizing and practices of organizational life. Theoretical and historical perspectives on org.com. Topics: organizational structure and culture, communication networks, decision-making, socialization, training, consulting, and workplace democracy.

COM 8208 Public Communication
Campaigns
Local, national and international campaigns, research target audiences, conduct formative research for message development, and design and evaluate multi-media message strategies. May be taught from a health/risk communication, political communication, or public communication perspective.

COM 8209 International Public Relations
Explores public relations theory, research, and practice in an international context. Explores public relations issues and practices in Asia, Europe, Latin America, and Africa. Students will develop a body of knowledge to help as future communication scholars or professionals.

COM 8210 Leadership Communication
Study of effective leadership. Examines communication environment and organizational politics. Participant model of leadership; group/team observation and participation.

COM 8211 Communication & Identity
Examines the communicative negotiation of identity in different contexts. It explores areas such as gender, race, sexuality and class.

COM 8212 Communication & Advocacy
This course acquaints students with ways of critically assessing the use of communication for social, economic, and/or cultural transformation. Course will incorporate perspectives from at least one of the following areas: rhetoric, critical/cultural studies, communication campaigns, organizational communication or media studies.

COM 8300 Public Relations Writing
Areas covered include journalistic style of writing, targeting audiences, practice in fundamentals and media relations techniques. Students will create portfolio writing samples, e.g. industry standard news releases, pitch letters and features, Q&A documents, crisis statements and position papers.

COM 8301 Strategic Public Relations
Foundation, history and evolution of public relations, including media, management, and client relations, writing, research, ethical counsel and crisis communication. Students form “agency” groups to solve a client’s pub-
lic relations challenges and present plan to leading public relations professionals.

**COM 8302 Advertising**
Research process in advertising, creative platform, development and execution, media planning and buying, evaluating, advertising effectiveness, new and non-traditional advertising, internet and web-based advertising, client management, and advertising in a socially conscious marketplace.

**COM 8303 Mass Media Industries**
Surveys media industries – newspaper, film/home video, broadcast television, cable television and the internet – focusing on how consumer demand, technology and government policies interact to affect industry behavior. Examines audiences as products of mass media industries.

**COM 8304 Journalism**
This course covers principles of journalism through theoretical, methodological, critical, and practical lenses. Areas of study include history, ethics, production, consumption, impact on individuals and society, content, and industry structure, all with an emphasis on the current and future state of journalism in the new media environment.

**COM 8305 Media Literacy**
Students examine the reciprocal relationship between culture and technology in understanding media. Students examine the sociocultural, ontological, economic, historical, and philosophical perspectives relevant for understanding media as technologies. Through historical and contemporary examples, students explore media technologies’ social significance.

**COM 8306 Media Production**
Provides an overview of the video production experience for those who want to include media production in business, advocacy, research and education.

**COM 8307 Visual Communication and Culture**
Theoretical and methodological introduction to the study of images as communicative and cultural phenomena. Theories of the image; implications for visual communication and culture; analysis and production of images in a variety of media and contexts.

**COM 8308 Theories & Effects of Mass Com**
Social scientific investigation of media effects and history of mass research. Globalization of mass media, direction and impact of new forms of communication, emerging media technologies and media convergence.

**COM 8309 Public Opinion**
Influences of strategic communication on attitudes, beliefs, and behaviors of message recipients. Definitional, ethical and methodological issues; rhetorical and social scientific approaches to opinion and attitude change; application to advertising, public relations, politics, and health communication.

**COM 8310 New Media**
Examines communication technology from the multiple perspectives of technology, markets and policy.

**COM 8313 Communication Directed Study**
Individual research project in an advanced area of communication, conducted under the guidance of a faculty member. (1 cr)

**COM 8314 Photoshop**
Introduce students to Adobe Photoshop software. Learn how to use Photoshop to alter existing images, to create new material, such as banners or logos. (1 cr)

**COM 8315 Video Shooting Lab**
Designed to give students who already have a basic understanding of video shooting a chance to explore issues of lighting, framing, lens choice, white balance, and shutter speed. (1 cr)
COM 8316 Audio Production
Introduce students to the technology and related issues in the production of audio-only work. Combined theory and production lab devoted to developing critical and theoretical skills around sound and focusing on technology and software. (1 cr)

COM 8317 Basic Web Design
Aesthetics of making quality web sites through HTML coding and Adobe Dreamweaver software. Conformity with W3C standards and website architecture. (1 cr)

COM 8318 Developing Crisis Materials
Essential strategies and tools needed by professional communicators. Proven techniques for crisis statements, talking points for media interviews, briefs for management and legal counsel, and message vehicles for the post-crisis environment. Agency teams formed to manage crises through developed materials. (1 cr)

COM 8319 Cultural Studies
Introduces students to interdisciplinary area of Cultural Studies. Explores Cultural Studies’ intellectual influences, emergence in the post-war era, and proliferation thereafter, with particular attention to its relevance for the study of communication.

COM 8320 Digital Media Design
This course is designed to provide a broad-based overview of the Media Arts & Design industry, focusing on the research, strategies and methods that go into designing and preparing media for consumption via a variety of delivery methods (including traditional mass media, online, and mobile devices). Students will gain a theoretical understanding of and practical experience with: digital photography & videography, web design & development, and multimedia production.

COM 8321 Critical Studies in Advertising
Students examine the reciprocal relationship between culture and commerce in understand-

COM 8322 Audience Analysis
Introduction to audience analysis including review of services provided by media research organizations and procedures of applied survey research for the media.

COM 8401 Special Topics in Qualitative Research
Concentrated workshop in a specific area of qualitative research. (1 cr)

COM 8402 Special Topics in Quantitative Research
Concentrated workshop in a specific area of quantitative research. (1 cr)

COM 8403 Special Topics in Applied Organizational Communication
Concentrated workshop in a specific area of applied organizational communication. Possible topics include: facilitating participation in organizations, leading diversity and social change, multicultural leadership for training teams and conflict mediation processes. (1 cr)

COM 9080 Thesis Continuation
Continuation of supervised research for student writing a Master’s thesis.
Graduate Studies

COMPUTING SCIENCES

Professors: Lillian N. Cassel, Ph.D., Chairperson, Computer Networks, Distributed Systems, Web-based Information Retrieval, Digital Libraries; Robert E. Beck, Ph.D., Computational Algebra, User/System Interface; Mirela Damian, Ph.D., Computer Networks, Operating Systems, Graph Theory; William Fleischman, Ph.D., Mathematical Biology, Combinatorial Algorithms, Computational Geometry, Parallel Algorithms; Giorgi Japaridze, Ph.D., Logic, Theory of Computation, Artificial Intelligence; Anany Levitin, Ph.D., Algorithms, Data and Information;

Associate Professors: *Vijay Gehlot, Ph.D., Colored Petri Nets, Systems Modeling and Simulation, Programming Languages, Formal Methods, Software Engineering; Don Goelman, Ph.D., Database Theory, System Programming, Computer Algebra; Daniel Joyce, Ph.D., Software Engineering, Operating Systems; Thomas P. Way, Ph.D., High Performance Computing, Compilers, Entertainment Technology

Assistant Professors: Mary-Angela Papalaskari, Ph.D., Logic, Artificial Intelligence

*Graduate Program Director

The Graduate Programs of the Department of Computing Sciences prepare students for careers and further study and research in Computer Science or Software Engineering. Both programs build on undergraduate preparation, continue study in fundamental concepts and extend into advanced topics suited to the specialization.

ADMISSION REQUIREMENTS
The department offers the MS degree in Computer Science and in Software Engineering. The entrance requirements for both programs are the same. Besides meeting the general requirements for admission to the Graduate School, an applicant should have a bachelor’s degree in computer science, engineering, mathematics, or the natural sciences. Applicants with a bachelor’s degree in another area who have strong technical backgrounds will also be considered. Knowledge is required of data structures and algorithms (CSC 1051, 1052), computer systems (CSC 2400), discrete structures (CSC 1300), calculus (MAT 1320, 1325) and statistics (MAT 2310). Deficiencies in these requirements must be made up in course. All students must take the Graduate Record Examination General Test. Foreign applicants must also take the TOEFL. Please contact the department for details on deadlines for submitting applications.
PROGRAM REQUIREMENTS—COMPUTER SCIENCE
Students must successfully complete the six required courses and four electives. One required course is the capstone project dealing with Grand Challenges of Computing, which is completed in cooperation with a faculty member. This project may be expanded to a thesis by registering for Thesis Direction as one of the electives. The intention to do a thesis must be approved by the faculty sponsor when the student begins work on the capstone project. Depending on the undergraduate background, one or two of the foundations courses may be substituted for additional electives.

The electives are to be selected from the courses in that category listed below. Students may petition for other courses in the allied fields of Computer Engineering and Mathematics to be considered as well. However, at least eight of the courses (24 of 30 credits) in every student’s program must be from Computer Science (“CSC” prefix) proper. In addition, CSC 9010 (Special Topics in Computer Science) may be retaken for credit, provided a different topic is being taught.

Students with especially strong undergraduate backgrounds are encouraged to discuss with the Program Director the possibility of substituting advanced courses for required ones. An optional Practicum Track requires students to obtain related work experience. This track has the same requirements as the regular M.S. degree but adds CSC 8990.

PROGRAM REQUIREMENTS—SOFTWARE ENGINEERING
Student must successfully complete seven required courses and three elective courses. One required course is the capstone project dealing with Grand Challenges of Computing, which is completed in cooperation with a faculty member. This project may be expanded to a thesis by registering for the Thesis Direction course as one of the electives. The intention to do a thesis must be approved by the faculty sponsor when the student begins work on the capstone project. Depending on the undergraduate background, one or two of the foundations courses may be substituted for additional electives.

CERTIFICATE PROGRAMS
The graduate program in computing sciences offers certificate programs to students who enrolled prior to Spring 2014. Beginning Fall 2014, no newly enrolling students are being admitted into certificate programs. These are independent of the master’s degree program. In other words, students may be enrolled in a certificate program, or in the master’s program, or both. However, students who are pursuing a certificate without the degree must still meet the general prerequisites for any courses in that certificate program.

Certificates are currently offered in the areas of Networks, System Programming, Knowledge-Based Systems, and Web-Based Technology. Each requires four courses, listed below, and one capstone project (which, for degree students, also fulfills the degree requirement) in the area. Students interested in a particular certificate program should register for it with the appropriate certificate coordinator, who will monitor progress towards the certificate, suggest or approve course substitutions and approve its completion. The capstone project topic, in particular, must be approved by the certificate coordinator. Finally, the coordinator may approve students’ requests to replace one of the four courses with a thesis option. Appropriate Special Topics courses may be approved for use in a certificate program, replacing one of the listed courses.
Certificate in Networks:
CSC 8530 Distributed Systems
CSC 8550 Data Communication
CSC 8560 Computer Networks
CSC 8580 Network Management and Performance

Certificate in System Programming:
CSC 8700 System Programming in UNIX and C
CSC 8710 Advanced System Programming in UNIX and C
CSC 8720 System Administration Concepts
One of the following:
CSC 8560 Computer Networks
CSC 8600 Object-Oriented Design and Programming

Certificate in Knowledge-Based Systems:
CSC 9490 Database Systems
CSC 8491 Data Mining and Database Programming
CSC 8520 Artificial Intelligence
One elective approved by the certificate coordinator. Examples:
CSC 9020 Special Topics
ECE 8412 Neural Networks
ECE 8429 Topics in Intelligent Systems

Certificate in Web-Based Technology:
CSC 8530 Distributed Systems
CSC 8560 Computer Networks
CSC 8610 Multimedia Technology
CSC 8700 System Programming

TECHNICAL DEVELOPMENT CURRICULUM
The Technical Development Curriculum (TDC) is offered by the Lockheed-Martin Corporation for its employees. Interested employees must apply for admission to this program by contacting the TDC Supervisor at Lockheed Martin. Students who complete the TDC program with satisfactory grades receive transfer credits at Villanova University for the CSC 8600 (Object-Oriented Design and Programming) and CSC 8560 (Computer Networks) courses. For details, contact the TDC Supervisor at Lockheed Martin or the Director of the Graduate Program in Computer Science at Villanova.

REQUIRED COURSES (MSCS)
CSC 8000 Foundations of Algorithms and Data Structures
CSC 8310 The Linguistics of Programming Languages
CSC 8400 Computer Systems
CSC 8510 Theory of Computability
CSC 9025 Grand Challenges of Computing (capstone project)
ELECTIVE COURSES (MSCS)

A. COMPUTER SCIENCE
CSC 8410 Advanced Computer Systems
CSC 8470 Computer Graphics
CSC 8490 Database Systems
CSC 8491 Data Mining and Database Programming
CSC 8500 Formal Grammars and Programming Language Theory
CSC 8505 Compiler Construction
CSC 8520 Artificial Intelligence
CSC 8530 Distributed Systems
CSC 8540 Software Engineering
CSC 8550 Data Communication
CSC 8560 Computer Networks
CSC 8570 User/System Interface Design
CSC 8580 Network Management and Performance
CSC 8600 Object-Oriented Design and Programming
CSC 8610 Multimedia Technology
CSC 8700 System Programming in UNIX and C
CSC 8710 Advanced System Programming
CSC 8720 System Administration Concepts
CSC 8750 Expert Systems
CSC 8990 Computing Practicum
CSC 9010 Special Topics in Computer Science
CSC 9030 Thesis

B. ELECTRICAL AND COMPUTER ENGINEERING
ECE 8412 Neural Networks
ECE 8416 Fuzzy Logic with Engineering Applications
ECE 8425 Microprocessors and Microcomputers
ECE 8428 Switching and Automata Theory
ECE 8429 Topics in Intelligent Systems
ECE 8445 Advanced Computer Architecture

C. MATHEMATICS
MAT 7750 Numerical Analysis I
MAT 8430 Operations Research
MAT 8435 Mathematical Modeling
MAT 8430 Operations Research
MAT 8435 Mathematical Modeling

REQUIRED COURSES (MSSE)
CSC 8000 Foundations of Algorithms & Data Structures
CSC 8400 Computer Systems
CSC 8540 Software Engineering
CSC 8541 Requirements Engineering
CSC 8542 Software Design and Evolution
CSC 8490 Database Systems
CSC 9025 Grand Challenges of Computing (capstone project)
Graduate Studies

ELECTIVE COURSES (MSSE)
CSC 8310 The Linguistics of Programming Languages
CSC 8470 Computer Graphics
ECE 8471 Software Reliability
CSC 8520 Artificial Intelligence
CSC 8530 Distributed Systems
CSC 8560 Computer Networks
CSC 8570 User/System Interface Design
CSC 8600 Object-Oriented Design and Programming
CSC 9010 Special Topics
CSC 9030 Thesis

BACKGROUND COURSES

CSC 7000 Algorithms and Programming
Algorithm design and refinement; extensive programming; loop and selection control; recursion; arrays, pointers, records and strings; abstract data types: linked lists, stacks, queues, binary trees, elementary searching and sorting. (3 cr)

CSC 7100 Computer Systems
Fundamental concepts in computer architecture and operating systems. Information representation, gates and digital logic, ALU and central processing organization, instruction sets, basics of pipelining, processes, memory management and files systems. (3 cr)

CSC 8100 Technology for Human Organizations
“Leading edge” technologies and their applications in a variety of organizational settings. Presumes literacy in basic computer applications: word processing, desktop publishing, spreadsheets and communications. (3 cr)

REQUIRED COURSES (MSCS)

CSC 8000 Foundations of Algorithms and Data Structures
Programming in Java or another object-oriented language. Program design with an emphasis on the object paradigm. Classic algorithms and data structures. Significant programming assignments are required.

CSC 8301 Design and Analysis of Algorithms
Fundamental strategies for algorithm design; mathematical and empirical techniques for analysis of nonrecursive and recursive algorithms, with applications such as sorting, searching, string processing and graphs; NP-complete problems and approximation algorithms. (3 cr) Pre-reqs: CSC 8000 or the equivalent; calculus.

CSC 8310 Linguistics of Programming Languages
Organization, characteristics, constructs and design principles of programming languages; syntax, semantics, and pragmatics; language implementation issues; different programming paradigms such as imperative, functional, object-oriented, and logic programming. (3 cr)

CSC 8400 Computer Systems
A continuation of the study of properties of computing systems. Topics include computer performance, pipelining, storage technologies, systems aspects of interconnection networks, parallel and distributed architectures. (3 cr)

CSC 8510 Theory of Computability
Automata theory: deterministic and non-deterministic finite automata, pushdown automata, regular languages, context-free grammars, pumping lemma. Computability and recursion theory; Turing machines and their variations, decidability and recursive enumerability, mapping reducibility and Turing reducibility, undecidability of the halting problem, logical theories and Gödel’s incompleteness theorem. Complexity theory:
time complexity, space complexity, major open problems on computational complexity. (3 cr) Coreq: CSC 8301 or degree program in mathematics.

**CSC 9025: Grand Challenges of Computing** Project-based course; research track: research topics, tools for investigation, modes of discovery and presentation, sources of information, inspiration, foundations of computing application; development track: significant software development, approaches, tools, techniques, trends, domains of applications. (3 cr)

**REQUIRED COURSES (MSSE)**

**CSC 8000 Foundations of Algorithms and Data Structures** Programming in Java or another object-oriented language. Program design with an emphasis on the object paradigm. Classic algorithms and data structures. Significant programming assignments are required.

**CSC 8400 Computer Systems** A continuation of the study of properties of computing systems. Topics include computer performance, pipelining, storage technologies, systems aspects of interconnection networks, parallel and distributed architectures. (3 cr)

**CSC 8490 Database Systems** Architecture of a database system; conceptual and implementation models; query languages, design theory; integrity, security, and concurrency; discussion of some commercial systems. (3 cr) Pre-reqs: CSC 8000, CSC 8400.

**CSC 8540 Software Engineering** An introduction to software engineering covering development life-cycle models, requirements analysis and specification, design concepts and methods, testing, maintenance, CASE tools and management concerns. Additional topics may include reuse, metrics, experimentation, reengineering, development environments, and standards. The student may be required to write a research paper and/or give an in-class presentation. (3 cr)

**CSC 8541 Requirements Engineering** Students will practice current techniques of requirements engineering. Topics include requirements elicitation and analysis, requirements specification, test driven development, system modeling, requirements validation, and requirements management. (3 cr)

**CSC 8542 Software Design and Evolution** System architecture overview, common frameworks for distributed systems, documentation, review and validation of designs, evolutionary design using agile methods including refactoring, design issues for mobile computing/embedded systems, designing testability into the system architecture, impact of architectural choices on deployment and evolution of software systems, analysis patterns and design patterns, configuration management, software evolution through release management. (3 cr)
ELECTIVE COURSES

CSC 8470 Computer Graphics Interactive program development in 2D/3D graphics; event handling, real-time data sampling, and strategies in programming computer games; 2D/3D modeling; perspective viewing; object transformation; graphical user interface design. (3 cr) Pre-req: CSC 8301.

CSC 8491 Data Mining and Database Programming The course will address both theory and practice concepts in the Information Management discipline. The following subject areas will be discussed in depth: 1) PL/SQL, 2) Object and Object-Relational Databases, 3) Data Warehousing, and 4) Data Mining. (3 cr) Pre-reqs: CSC 8490.

CSC 8500 Formal Grammars and Programming Languages Theory Machines; nondeterminism; simulation; finite machines and regular languages; grammars; stack, counter, and tape machines; computability. (3 cr) Pre-reqs: CSC 8301, CSC 8310.

CSC 8505 Compiler Construction Finite state methods for lexical and syntactical analysis; symbol table construction, run-time-code organization for block structured language, intermediate code generation, and pseudo-object machines. LR(k) and LL(k) parsers. Programming assignments and exercises are given. (3 cr) Pre-reqs: CSC 8301, CSC 8310.

CSC 8520 Artificial Intelligence Problem-solving methods; knowledge representation; search; predicate calculus; automated theorem proving; natural language processing. (3 cr) Pre-req: CSC 8301.

CSC 8530 Distributed Systems An introduction to distributed systems; distributed system architecture and design goals; networks and distributed protocols; distributed/network operating systems, including distributed resource control and management, con- current and interprocess communication; remote procedure calling; client/server techniques and issues; reliability of distributed systems; security and authentication. (3 cr) Pre-reqs: CSC 8301, CSC 8400.


CSC 8560 Computer Networks Computer networks as an application development platform; services required by and provided to distributed applications; electronic mail systems enhancement; access to remote file systems; integration of remote resources such as components of the World Wide Web into applications; abstract syntax notation; security; data compression and encryption; session control and synchronization; transport protocols; network addressing and routing; LAN and MAN medium access control; bridging. Treatment of Open Systems Interconnection and Internet protocols and services. (3 cr) Pre-reqs: CSC 8000, CSC 8400.

CSC 8570 User/System Interface Design The design and measurement of human-computer interfaces, with the objectives of developing models of user communities, summarizing current research in user-oriented design, defining design criteria for the user/system interface, and constructing test strategies for interactive software systems. (3 cr)

CSC 8590 Advanced Software Engineering In-depth coverage of software engineering topics such as: reuse, metrics, CASE tools, design methodologies, reengineering, experimentation, automatic programming, software safety, development environments, reliability
theory, risk management, and standards. The student may be required to write a research paper and/or give an in-class presentation. (3 cr) Pre-req: CSC 8540.

**CSC 8600 Object-Oriented Design and Programming** Introduces the theoretical and practical issues underlying the object-oriented paradigm, including classes, encapsulation, inheritance, and polymorphism. Primary topics also include object-oriented analysis and design, databases, and technology transfer. The use of an object-oriented programming language, such as Java or C++, is an integral part of the course. Problems involving program design and implementation will be assigned. The student may be required to write a research paper and/or give an in-class presentation. (3 cr) Coreqs: CSC 8000, CSC 8310.

**CSC 8610 Multimedia Technology** Theory and practice of multimedia content, representation, compression, storage, and delivery. Content types include text, audio, images, graphics, animations, and video. Student projects and presentations are generally an integral part of the course. (3 cr) Pre-req: CSC 8301.

**CSC 8700 System Programming in UNIX and C** The UNIX operating system: command interpreters, shell programming, process structure, file system, utilities like grep, sed, awk, and perl. C programming: file processing, libraries, program environment, system calls. (3 cr) Pre-reqs: CSC 8000, CSC 8400.


**CSC 8750 Expert Systems** Knowledge representation and reasoning techniques; forward and backward chaining; semantic net and frame systems; uncertainty, automated knowledge acquisition; practical guidelines for implementing expert systems. (3 cr) Pre-req: CSC 8520.

**CSC 9010 Special Topics** Advanced elective study of topics of current interest and importance in the computer field. This may be retaken for a different topic. (3 cr)

**APPROVED ELECTIVES FROM ELECTRICAL AND COMPUTER ENGINEERING**

**ECE 8412 Neural Networks** A study of the basic principles of neural networks. The more widely used architecture and learning rules will be investigated with some applications. Computer laboratory work will involve neural network simulation software. (3 cr) Pre-reqs: Linear algebra and logic circuits.

**ECE 8416 Fuzzy Logic with Engineering Applications** Theory and application of fuzzy logic. (3 cr) Pre-req: Graduate standing.

**ECE 8425 Microprocessors and Microcomputers** An advanced study of hardware and software concepts necessary for the design of 32-bit microprocessor-based systems. Topics include instruction sets, I/O control, interrupts, and the areas of computer engineering, signal processing and communication. Course includes a student design project and laboratory work involving a 32-bit processor. Some knowledge of 16-bit microprocessor is assumed. (3 cr) Pre-req: ECE 8405 or permission of the instructor.
**ECE 8428 Switching and Automata Theory**
Advanced topics in combinational logic circuits, synchronous sequential circuits, and asynchronous sequential circuits. Topics include functional decomposition, fault detection, machine minimization, state assignment techniques, machine structure, machine testing, and finite state recognizers. (3 cr) Pre-req: ECE 8405 or permission of the instructor.

**ECE 8429 Topics in Intelligent Systems**
Specialized and advanced topics: for example, fuzzy systems, advanced neural networks, genetic algorithms, cognitive maps, and reasoning under uncertainty. This course may be repeated for credit with prior permission. (3 cr) Pre-req: Permission of instructor.

**ECE 8445 Advanced Computer Architecture**
Classifications of machines, memory management, caches, buses, pipelining, language directed architecture, RISC architecture, data flow architectures. (3 cr) Pre-reqs: ECE 8405 and ECE 8473.

**APPROVED ELECTIVES FROM MATHEMATICS**

**MAT 7750 Numerical Analysis I**
Error generation and propagation, root finding, approximation of functions by polynomials and cubic splines, direct and iterative solutions of linear systems, operations count, numerical differentiation and integration. (3 cr)

**MAT 8430 Operations Research**
Deterministic mathematical models, including linear programming, integer programming, inventory, transportation, and assignment problems, networks and flows, nonlinear programming and dynamic programming with an emphasis on principles and techniques. (3 cr) Pre-req: Multivariable calculus, linear algebra.

**MAT 8435 Mathematical Modeling**
Model construction, Markov chains, game theory, networks and flows, growth processes and models for epidemics and queues with an emphasis on model construction. (3 cr) Pre-req: Multivariable calculus, differential equations, linear algebra.

**RESEARCH AND INDEPENDENT STUDY**

**CSC 9000 Guided Study**
Faculty directed study for one or a small number of students on a topic of mutual interest. Requires permission of the faculty sponsor and the director of the graduate program. (3 cr)

**CSC 9020 Independent Study**
Individual research project in an advanced area of computer science, conducted under the guidance of a faculty member. (3 cr)

**CSC 9021 Independent Study Continuation**
Continuation beyond the first semester for students who have registered for the independent study or capstone project. (0 cr)

**CSC 9030 Thesis**
Expanded independent study in which the student makes an original contribution to the computer science field. (3 cr)

**CSC 9080 Thesis Continuation**
Continuation beyond the first semester for students who have registered for the thesis (CSC 9030). (0 cr)

**PRACTICUM**

**CSC 8990 Computing Practicum**
Students enrolled in the Practicum track must complete 3 months of relevant work experience approved by the Program director (1 cr)

**CSC 8991 Computing Practicum Continuation**
Continuation beyond the first semester for students who have registered for computing practicum (CSC 8990) (0 cr)
Villanova University

EDUCATION and COUNSELING

Professors: Victor D. Brooks, Ed.D., Teacher Education; Ph.D., School Leadership;  
Connie Titone, Ed.D., Philosophy of Education

Associate Professors: Jerusha H. O. Conner, Ph.D., Education Policy;  
John H. Durnin, Ph.D., Teacher Education; Edward Fierros, Ph.D., Department  
Chairperson, Teacher Education; Krista Malott, Ph.D., Counseling; Rayna Markin, Ph.D.,  
Counseling; Teresa G. Wojcik, Ph.D., Teacher Education

Assistant Professors: Christa Bialka, Ed.D., Special Education;  
Stacey A. Havlik, Ph.D., Counseling; Robert J. Murray, O.S.A., Ph.D., Program  
Coordinator, Counseling, Teacher Education; Christopher D. Schmidt, Ph.D., Counseling;  
Edward Wahesh, Ph.D., Counseling

Emeritus Professor: Wm. Ray Heitzmann, Ph.D.

DEPARTMENTAL PROGRAMS
The Department of Education and Counseling offers two graduate degrees: Master of Arts in Education and Master of Science in Counseling. The Master of Science allows concentrations in elementary and secondary school counseling, and clinical mental health, and pastoral ministry. Pennsylvania certification programs are offered in school counseling and initial teaching certification at both the graduate and undergraduate levels. Each program has a core of required courses, as well as specific admission requirements.

MASTER OF ARTS IN EDUCATION: THREE CONCENTRATIONS
Each concentration leads to the degree of Master of Arts in Education. The concentration in Graduate Education is designed to aid the teacher in the following areas: 1) strengthening and expanding professional knowledge; 2) applying research to improve teaching practice; 3) pursuing special interests in education (e.g., curriculum design) and 4) learning to apply knowledge and skills to the larger school community. The concentration in Teacher Leadership is designed for individuals who wish to develop their leadership ability for use in the classroom or in such expanded roles as lead teacher, team leader, curriculum developer, department chairperson, new teacher mentor or special project leader. The Teacher Leadership program is also intended for teachers who want to apply their knowledge and skill to the larger school community, yet may not want to leave their classrooms to do so. Professionals who enter this program are leaders and future leaders of our schools. The Masters Plus Teacher Certification is for aspiring teachers and leads to a Master’s Degree and students satisfy Pennsylvania Department of Education “Program approval” requirements for state certification in secondary teaching. For students already having received a master’s degree, a post-masters certificate in Teacher Leadership may be obtained.
1) Master of Arts in Education with a Graduate Education or Teacher Leadership concentration (30 Credits)

**Degree Requirements:** A minimum of 30 graduate credits is required for each concentration of the Master of Arts in Education degree. A student may choose to take all 30 credits in Education or to combine credits in Education with graduate credits in another subject or teaching field. Upon receiving approval of the Department of Education and Counseling, a student may undertake the writing of a thesis for six credits in lieu of six semester-hour course credits. All students are required to complete three one-credit workshops from a selection of listings. Prior to being awarded the degree, students must pass a comprehensive examination. This may be taken following the completion of 24 credits.

Admission Requirements for the Graduate Education and Teacher Leadership concentrations are:

1) a bachelor’s degree from an accredited college;
2) three letters of recommendation;
3) an undergraduate cumulative average of 3.0;
4) one of the following is required:
   a. evidence of a currently valid teaching certificate; or
   b. score on the GRE Education Test or Miller Analogies Test.

Exceptional cases are considered on an individual basis. Requests for transfer credit, up to 6 credit hours, must be submitted at the time of application. Any deficiency in undergraduate credits must be completed before entrance into the program.

2) Master of Arts plus Teacher Certification (36 Credits)

**Degree Requirements:** Those seeking admission in this track of the program should have an undergraduate major in an academic subject area (English, Mathematics, Spanish, etc.) taught at the High School level. Some candidates may need additional coursework before entering the program. The program consists of 36 credits, including workshops, observations in schools and a full time student teaching experience. The program is typically completed in two semesters and two summer sessions and exists for prospective secondary teachers only.

Admission Requirements for this program are:

1) Graduated from an accredited college or university with a baccalaureate degree in a teaching subject area (English, Mathematics, Foreign Language, etc.). *
2) Earned a GPA of 3.0 or higher.
3) Completed at least six (6) credits of college level mathematics or equivalent.
4) Completed at least six (6) credits of college level English or equivalent (3 credits in English Literature and 3 credits in composition).
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5) Took the Graduate Record Exam or the Miller Analogies Test. Scores should be submitted by Educational Testing Service (ETS) or The Psychological Corporation to the Department of Education and Human Services.

6) Passed the Praxis Series Praxis I Academic Skills Assessment test. Scores should be submitted by the Educational Testing Service to the Department of Education and Counseling at Villanova University.

7) Submitted an application and all transcripts from colleges or universities attended to the Graduate School of Villanova University.

8) Submitted three letters of recommendation, two from faculty of any of the colleges or universities the applicant attended and one from an employer or supervisor for whom the applicant worked.

* Additional courses in the teaching area may be required prior to the start of the program based upon the transcript evaluation

Graduate Education Concentration

THIRTY (30) CREDITS REQUIRED FOR DEGREE

I. CORE COURSES (REQUIRED):
   EDU 8561 Advanced Trends and Issues in Special Education *
   EDU 8603 Educational Research *
   EDU 8641 Assessment and Analysis *
   EDU 8679 Standards Aligned Systems and Curriculum *
   EDU 8673 Philosophy of Education *

II. (15) CREDITS FROM THE FOLLOWING:
   EDU 8400 Critical Perspectives Special Education
   EDU 8561 Advanced Trends and Issues in Special Education
   EDU 8606 Assessment and Evaluation in the Classroom
   EDU 8610 Current Issues in American Education
   EDU 8620 Foundations of Reading Instruction
   EDU 8622 Diagnosis and Remediation of Reading Difficulties
   EDU 8626 Learning Disabilities and the Teaching of Reading
   EDU 8627 Teaching the Language Arts
   EDU 8631 Methods of Teaching Writing
   EDU 8654 Policy Analysis
   EDU 8662 Trends in the Social Studies
   EDU 8663 Teaching Processes and Problem Solving in Mathematics & Sciences
   EDU 8664 Politics of Education
   EDU 8669 Comparative Education
   EDU 8670 History of Western Education
Graduate Studies

EDU 8671 History of American Education
EDU 8672 Instructional Leadership
EDU 8676 Technology in Teaching
EDU 8678 Multiculturalism, Gender, and Inclusion in Schools
EDU 8869 Special Topics: Education

Three workshops required (one credit each)
Up to 12 credits may be taken in teaching content area

* Core courses must be completed prior to taking the Comprehensive Examination.

Teacher Leadership Concentration

THIRTY (30) CREDITS REQUIRED FOR DEGREE

I. CORE COURSES (REQUIRED):
   EDU 8561 Advanced Trends and Issues in Special Education *
   EDU 8603 Educational Research * or
   EDU 8641 Assessment and Analysis *
   EDU 8654 Policy Analysis
   EDU 8672 Instructional Leadership *
   EDU 8679 Standards Aligned Systems and Curriculum *

II. (15) CREDITS FROM THE FOLLOWING:
   EDU 8664 Politics of Education
   EDU 8669 Comparative Education
   EDU 8610 Current Issues in American Education
   EDU 8673 Philosophy of Education
   EDU 8678 Multiculturalism, Gender, and Inclusion in Schools
   EDU 8869 Special Topics: Education

   One approved elective or 3 one credit workshops

Master of Arts plus Teaching Certification

THIRTY SIX (36) CREDITS REQUIRED FOR DEGREE (12 month program):

   EDU 8675 Development of the English Language Learner (ELL)
   EDU 8678 Multiculturalism, Gender, and Inclusion in Schools
   EDU 8671 History of American Education
   EDU 8673 Philosophy of Education
   EDU 8618 Educational Psychology
Three one-credit workshops required including EDU 7321 program capstone seminar

**Master of Science in Counseling**

The Program offers a Masters of Science in Counseling with specialization in Clinical Mental health Counseling and School Counseling. These areas of specialization share a common core of courses required for all students. Theoretical mastery and applied skill development are emphasized. The School Counseling Program (54 credits) permits the student to meet most requirements for licensure as a professional counselor. The School Counseling program (54 credits) is approved by the Commonwealth of Pennsylvania Department of Education and offers K-12 certification in school counseling. While the Clinical Mental Health Counseling program requirements (60 credits) are frequently updated in response to certification and licensure requirements, Counseling students are expected to meet the course and clinical requirements of the Counseling program at the semester of first matriculation.

**Admission Requirements**

The applicant must submit: Undergraduate transcript(s), three letters of recommendation, an experience and goals statement, Miller’s Analogies Test (MAT) scores or Graduate Record Exam scores. For additional information regarding admissions requirements, please visit the M.S. in Counseling website.

**Program Requirements**

A core program is required of all students. Each area of specialization (i.e., Clinical Mental Health and School Counseling) requires specific courses, recommended electives, a one-semester practicum, a two-semester internship, and a comprehensive examination to complete the degree program. Online registration requires a student pin number which is available through your advisor.

**Core Program (Courses Required for All Tracks)**

- CHR 8605 Laboratory in Counseling Skills
- CHR 8655 Laboratory in Group Dynamics
- CHR 8687 Counseling Theory and Practice
- CHR 8604 Research and Evaluation
- CHR 8685 Lifestyle and Career Development
- CHR 8855 Assessment and Appraisal
- CHR 8855 Human Growth and Development
- CHR 8860 Lab in Counseling Diverse Populations
- CHR 8883 Ethics and Legal Issues in Counseling
Required Courses (specific to chosen track in addition to core program courses)

1. CLINICAL MENTAL HEALTH COUNSELING (CMHC) - (60 credits)

- CHR 8840 Crisis Interventions
- PSY 8225 Psychopathology
- CHR 8682 Practicum in Clinical Mental Health
- CHR 8686 Group Counseling Theory & Practice
- CHR 8688 Orientation to CMHC
- CHR 8844 Family Systems Theory
- CHR 8845 Family Interventions
- CHR 8850 Internship I in Clinical Mental Health Counseling
- CHR 8851 Internship II in Clinical Mental Health Counseling
- CHR 8873 Substance Abuse Counseling
- CHR 8874 Prevention Theory & Practice
- CHR 8886 Topics in Counseling

2. SCHOOL COUNSELING – (54 credits)

- CHR 8600 Special Ed. for Counselors & Teachers
- CHR 8677 Practicum in School Counseling
- CHR 8683 Consultation Processes
- CHR 8688 Orientation to School Counseling
- CHR 8692 Internship I in School Counseling
- CHR 8694 Internship II in School Counseling
- CHR 8854 Therapeutic Strategies for Working with Children (All Elementary)
- CHR 8857 Adolescent Counseling Strategies (All Secondary)
- CHR 8884 Human Growth & Development
- CHR 8675 Development of ELL Students
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**PROGRAM COURSES**

**CHR 7132 Ethical and Legal Issues in Counseling** Ethical issues in School and Clinical Mental Health settings in relation to the American Counseling Association’s Ethical Guidelines. (1 cr)

**CHR 7175 Cognitive Developmental Theory For Professionals** Assists students in providing Cognitive Developmental Theory as an organizing framework for conceptualizing their future work as teachers and counselors. (1 cr)

**CHR 8600 Special Education for Counselors and Teachers** Focuses on children with special needs, and the role of the guidance counselor and teacher in working with them.

**CHR 8604 Behavioral Research** Analysis of major types of social science research; familiarization with bibliographical sources, computer searches, and literature survey procedures; consideration of ethical issues; evaluation of research; its implications for, and its applications to counseling; practice in using common research procedures. (3 cr) Pre-req: CHR ONLY

**CHR 8605 Laboratory in Counseling Skills** Introductory course in counseling focusing on such skills as attending, listening, perceiving, reflecting, summarizing, questioning, confronting, goal-setting and decision-making. Ethical and professional issues will also be discussed. Skill building practice sessions are emphasized. (3 cr)

**CHR 8655 Laboratory in Group Dynamics** An experiential course requiring participation in an on-going personal growth group. The course is designed as a place where students can learn more about themselves and their interaction with, and reactions to, others. Permission by the instructor required for those outside the Counseling and Human Relations program. (3 cr) CHR ONLY

**CHR 8680 School Counseling Orientation** To develop a guidance philosophy, objectives and goals, that are complementary and consistent with the philosophy of the school and to develop the counselor as a catalyst to produce a positive environment for learning. (3 cr) (Offered Fall only)

**CHR 8677 Practicum in School Counseling** In the description replace "to provide students in secondary school counseling" with "school Counseling"

**CHR 8682 Practicum and Seminar in Clinical Mental Health Counseling** An experiential course designed to provide students in counseling with their first client contact and the opportunity to begin translating their academic understanding into actual counseling practice. (3 cr) CHR only. Pre-req.: CHR 8605, CHR 8655, CHR 8687.

**CHR 8683 Consultation Processes** The effective use of the techniques of counseling in the application of consultative services are explored. Basic individual and group skills, organizational structure and effective communication are presented. (3 cr)

**CHR 8685 Lifestyle and Career Development** This course focuses upon several psychological theories of career development with an emphasis on vocational and lifestyle choice processes across a lifespan. (3 cr)

**CHR 8686 Group Counseling Theory & Practice** An examination of group development theories, concepts in leadership, ethical and professional issues in groups. Students will observe and critique a beginning group. To help integrate the experiential with the theoretical components of group study, a group experience and an opportunity to co-facilitate the group are included. (3 cr) CHR ONLY Pre-req: CHR 8687.
CHR 8687 Counseling Theory and Practice
A study of the major counseling theories and practices used in helping relationships utilizing various counseling techniques in actual counseling sessions. Ethical issues will also be discussed. (3 cr)

CHR 8688 Clinical Mental Health Counseling
Orientation Designed to introduce students to the profession and to acquaint them with the history, structure, practices, standards, values and ethics of the Clinical Mental Health counselor.

CHR 8692 Internship I in School Counseling
On-Campus instruction combined with client contact and other field experiences dealing with the school organization; relationship with staff, community and pupils; program evaluation

CHR 8694 Internship II in School Counseling
Supervised field experience in school counseling; study and application of various methods of counseling; critiquing live and simulated counseling sessions employing audio and visually recording methods. Ethical issues will also be discussed. Students spend at least 300 hours in the field. (3 cr)

CHR 8693 Internship II and Seminar in Secondary School Counseling
Supervised field experience in secondary school counseling in an approved secondary school; study and application of various methods of counseling; critiquing live and simulated counseling sessions employing audio and visually recording methods. Ethical issues will also be discussed. Students spend at least 300 hours in the field. (3 cr)

CHR 8695 Practicum in Facilitating and Co-Facilitating Groups
A practicum experience in co-facilitating groups will give the student practice in conducting a group, dealing with ethical considerations, leadership styles, group problems, difficult group issues, and difficult group member types. (3 cr) Admission by permission of instructor.

CHR 8857 Adolescent Counseling Interventions
Individual, family and school/institution therapeutic interventions for working with adolescents. Adolescent developmental stages and tasks as they relate to mental health with emphasis on gender and cultural differences. Practice in developmental and remedial strategies. Pre-reqs: 8605, 8655 CHR ONLY

CHR 8858 The Goals of Individual and Group Supervision
Post-master’s supervised practicum providing a professional forum allowing participants to analyze and apply different approaches to specific counseling situations. Discussion of ethical issues involving the counseling relationship.

CHR 8859 Internship and Seminar in Counseling III

CHR 8860: Laboratory in Counseling Diverse Populations
This course will explore the social, psychological, cultural, economic and environmental influences that affect counseling clients from various populations. The ethical treatment and special counseling needs of women, men, ethnic and cultural minorities, and those with disabilities will be explored in a laboratory environment. (3 cr)

CHR 8862 Couples Counseling
Foundational to both theory and intervention strategies for counseling couples and families, addressing both the couple and individual systems. (3 cr)

CHR 8864 Brief Strategic Therapy
This course will explore the brief strategic therapy model. Some of the approaches to be studied include: Neurolinguistic Programming, Ericksonian hypnotherapy and strategic therapy. Ethical issues will also be discussed. (3 cr) CHR ONLY Pre-reqs: CHR 8605, CHR 8687.

CHR 8866 Advanced Seminar in Supervision
Required experience in supervision of first year students and/or new counselor at your place of employment. (3 cr)
CHR 8868 Practicum in Supervision
Required experience in supervision of first
year students and/or new counselor at your
place of employment, approximately one hour
per week. Identification of and continuous
follow-up of one client during the semester
will be required. (3 cr)

CHR 8873 Substance Abuse Counseling
Focuses on the effect various substances have
on the individual’s physiological, sociological
and psychological systems. Effective
approaches for rehabilitating these negatively
afflicted systems will be explored. (3 cr)

CHR 8884 Human Growth and
Development Developmental stages and tasks
as they relate to mental health will be
explored. Psychological, sociological, and bio-
logical dimensions will be reviewed and coun-
seling strategies for dealing with problems and
life crises will be demonstrated. (3 cr)

CHR 9031 Independent Study and
Research (3 cr) With approval of supervisio-
ry faculty member.

CHR 9034 Thesis I Direction of writing of
the thesis under supervision of an individual
instructor. (3 cr)

CHR 9035 Thesis II Direction of writing of
the thesis under supervision of an individual
instructor. (3 cr)

EDU 8540 Methods of Teaching Math and
Science Methods Lesson and unit planning
standards, technology, professional codes, and
field experiences for prospective teachers of
secondary Mathematics and Science.
Restricted to Master’s and Certification
Students with permission of chair. (3 cr)
Restrictions: Must be enrolled in one of the
following Levels: Graduate Arts and Sciences

EDU 8550 Methods of Teaching English
and Social Studies Methods, lesson and unit
planning, technology, professional codes, and
field experiences for prospective teachers of
secondary English and Social Studies. (3 cr)
Restrictions: Must be enrolled in one of the
following Levels: Graduate Arts and Sciences

EDU 8561 Advanced Trends & Issues in
Special Education Discussion of recent
issues in special education and inclusion with
implications for classroom instruction. (3 cr)

EDU 8603 Educational Research Analysis of
diverse types of educational research; famil-
iarization with research resources and litera-
ture survey procedures; evaluation of educa-
tional research; its implications for, and
application to, educational practice; emphasis
on the scientific methods of investigation;
development of competency to conduct a
research study and write a research report. (3 cr)

EDU 8606 Assessment and Evaluation in
the Classroom The course will engage stu-
dents in the techniques and strategies that
characterize quality assessment as well as
examine the relation of learning to evaluation
and aid students to enhance their philosophy
of assessment. (3 cr)

EDU 8610 Current Issues in American
Education Critical issues for the administra-
tor, counselor, and teacher are discussed.
Students are grouped according to their areas
of concentration so that the issues chosen
reflect their concerns. (3 cr)

EDU 8614 Curriculum and Assessment
Recent research, trends, and issues in curricu-
ulum design and assessment. Purposes and
types of curriculum and assessment in educa-
tion. Analysis of curriculum documents;
investigation of changing models of curricu-
ulum design and the trend towards outcomes-
based curriculum planning. Connections
among assessment, curriculum and instruc-
tion. (3 cr)
EDU 7676 Educational Philosophy of St. Augustine Philosophical and psychological factors involved in the learning-teaching process gleaned from the life and works of St. Augustine. (3 cr)

EDU 8616 Methods of Teaching Practice in pedagogical techniques requisite in the quality classroom. Examination of research findings relative to teaching students with a variety of backgrounds, intelligences and needs. Emphasis on planning, methodology and assessment. (3 cr)

EDU 8618 Educational Psychology Provides an appreciation for the varied psychological dynamics occurring within the learning setting as well as the implication of those dynamics for effective pedagogy. (3 cr)

EDU 8620 Foundations of Reading Instruction An introduction to the nature of reading, the development of trends in reading instruction; the appraisal of reading needs and requirements for the improvement of reading instruction. (3 cr)

EDU 8622 Diagnosis and Remediation of Reading Difficulties Focuses on the techniques and materials utilized in the diagnosis and remediation of reading difficulties of students in grades K-12. (3 cr)

EDU 8624 Teaching Reading in the Secondary School Developing the appropriate reading instruction in various subject areas. Specific and practical methods that can be utilized by teachers to combine reading instruction with competency in the subject area. (3 cr)

EDU 8625 Organization and Administration of Reading Programs Various organizational patterns, and the procedures for organizing and administering developmental and remedial reading programs are studied. The responsibilities of the Reading Specialist are examined and discussed in detail. (3 cr)

EDU 8626 Learning Disabilities and the Teaching of Reading The characteristics of learning disabled students, and the instruments used for identification of learning disabilities are studied. Severe language, reading, and motor disorders are discussed, and the techniques and materials used to assist learning disabled students with the reading process are presented. (3 cr)

EDU 8627 Teaching the Language Arts Techniques for developing the language arts skills of listening, speaking, reading, and writing are stressed. The experiences outlined in the Pennsylvania Comprehensive Reading/Communication Arts Plan are examined. Improving the Language Arts Curriculum so that all students will become literate is the major theme of the course. (3 cr)

EDU 8628 Graduate Student Teaching Observation and teaching under actual classroom conditions in the student’s field of teaching specialization; open only to students of the Master’s + Certification Program. (6 cr)

EDU 8631 Methods of Teaching Writing This course aims to teach K-12 teachers how to effectively teach writing both in the traditional classroom setting and with the aid of computer technology. (3 cr)

EDU 8641 Assessment and Analysis Assessment procedures, statistical data and analysis of student assessment results. Computation, application, and interpretation of statistical data. Interpretation of classroom and standardized assessment information for decision-making. (3 cr)

EDU 8651 Social Issues and Schools Introduces aspiring school leaders to selected social issues and their impact upon school organizations. Extant social science research is examined and community service agencies are surveyed in order to develop community-based networks to help educators deal with these social issues and to encourage closer school-community relations. (3 cr)
EDU 8654 Policy Analysis  An overview of the policy process and introduction to the art of policy analysis, through examination of the roots and repercussions of current educational policies, at federal, state, and local levels. (3 cr)

EDU 8656 School Law  The study of the relation of law, politics, and education within the framework of the American legal system. Surveys the legal concerns, interests, and issues that dominate American jurisprudence and the interpretation of education-related laws as they relate to both public and nonpublic schools. (3 cr)

EDU 8658 Business Aspects of School Administration  Provides an overview of the structure and functions of a school’s business office as well as how these support the achievement of the school’s primary purpose, the education of youth. (3 cr)

EDU 8662 Trends Social Studies  An investigation of teaching innovations as well as changes in the disciplines of History and the Social Sciences and techniques for evaluation instructional materials. (3 cr)

EDU 8663 Teach Prob Solv Math-Sci  Recent curriculum developments in mathematics and science with emphasis on inquiry and discovery; methods of teaching processes and problem solving in elementary and secondary school classrooms. (3 cr)

EDU 8664 Politics of Education  The local, state and national political context and philosophical and historical antecedents of the political process in the United States. (3 cr)

EDU 8669 Comparative Education  Educational ideals, systems, and problems of the United States and selected foreign countries. Special reference given to curriculum development and teaching materials in each country. (3 cr)

EDU 8670 History of Western Education  The principal movements; origins of the liberal arts; educational work of the Church; beginnings of the university; education in the Renaissance and Reformation; nationalism in European education; educational thought in the West. (3 cr)

EDU 8671 History of American Education  The principal movements in American education and their leadership, including college and university development, public and parochial schools, teacher education, progressive education and role of the federal government. (3 cr)

EDU 8672 Instructional Leadership  Develops a foundation for aspiring school leaders to synthesize research in social science, curriculum and instruction, as well as human resources and leadership with their experiential perspectives about effective teaching. (3 cr)

EDU 8673 Philosophy of Education  The immediate and ultimate ends of education; the nature of the child and the philosophical basis for religious and moral training, intellectual and aesthetic culture, curriculum and methods; Naturalism, Pragmatism, Socialism and Scholasticism in their educational implications and applications. (3 cr)

EDU 8675 Development of the English Language Learner (ELL)  This course is designed to provide the theoretical principles and practical knowledge that are essential for regular education teachers to understand the development and education of the English Language Learner. Topics covered include the language acquisition process, relevant cultural factors, standards-based instruction, assessment, and professionalism. Legal and ethical responsibilities for content area teachers will also be addressed. (3 cr)
EDU 8676 Technology in Teaching
Examination of a variety of technological applications appropriate to elementary and secondary teaching. Emphasis is upon integrating the use of computers, the Internet, DVD and multimedia with classroom instruction. Laboratory experiences with various technologies will be provided. Course will allow for differentiated learning experiences based upon previous technical skills. (3 cr)

EDU 8677 The Principalship
Examines educational management and leadership from an interdisciplinary perspective. A special emphasis is placed upon organizational learning, school transformation, and the critical role assumed by school leaders as they enable others to develop self-managing schools. (3 cr)

EDU 8678 Multiculturalism, Gender, and Inclusion in Schools
Issues of race, culture, sexual orientation, and special education as they are related to the understanding and practice of education. (3 cr)

EDU 8679 Standards Aligned Systems and Analysis
Introduction and use of the Standards Aligned Systems. Aspects of currently advocated elementary and secondary school curriculums; instructional methods and innovations in curriculum implementation; processes for designing and developing curriculum; future projections. (3 cr)

EDU 8696 Leadership Practicum
Students spend a total of 120 hours shadowing three practicing school principals in three different educational settings (public, private, urban/suburban) to observe school leadership behavior in practice and to construct a practice-based school leadership model. (3 cr)

EDU 8697 Simulation in School Leadership
Taken after completion of the skills component, this seminar features a reality-based learning project to develop strategic problem-solving skills through computer simulation, interactive video, and other data resources. Students develop a one- and three-year strategic plan for presentation to a board of three practicing school superintendents. (3 cr)

EDU 8699 Foundations of U.S. Catholic Education
An exploration of the theological, philosophical, and historical trends impacting the development of U.S. Catholic Educational policy. (3 cr)

EDU 9031 Independent Study and Research
(3 cr)

EDU 9034 Thesis I
Direction of writing of the thesis under supervision of an individual instructor. (3 cr)

EDU 9035 Thesis II
Direction of writing of the thesis under supervision of an individual instructor. (3 cr)
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Post-Baccalaureate Graduate Certification in Education

Fifteen (15) Credits Required for Certification

Admission Requirements
The program is open to post-baccalaureate students who submit a satisfactory undergraduate transcript from an accredited institution of higher education with a minimum GPA of 3.0. The applicant must also be of good character and legal standing.

Certificate Requirements
The number of credits required is 15; nine (9) must be fulfilled by the three required courses. No transfer credits from other institutions will be accepted for the certificate program.

Required Courses (3):
EDU 8616  Methods of Teaching (optional for state-certified teachers)
EDU 8679  Standards Aligned Systems and Curriculum
EDU 8561  Advanced Trends in Special Education

Electives (2):
EDU 8610  Current Issues in Education
EDU 8662  Trends in the Social Studies
EDU 8669  Comparative Education
EDU 8670  History of Education
EDU 8673  Philosophy of Education
EDU 8678  Multiculturalism, Gender, and Inclusion in Schools

Additional Elective Option: With the approval of the Chairperson of the Department of Education and Counseling, students enrolled in the certificate who are degree or certificate candidates in another Graduate Arts and Sciences program at Villanova, may use one course in that program to satisfy one elective in the Education Certificate.
The College of Engineering conducts several graduate programs. Detailed descriptions can be found at http://www.villanova.edu/engineering/academics/graduate/

ENGLISH

Professors: Charles L. Cherry, Ph.D., British Romanticism, Madness and Imagination, History of Ideas; Lauren E. Shohet, Ph.D., Renaissance and 17th Century Literature, Cultural Studies, Literary Theory, Gender Studies

Associate Professors: Michael Berthold, Ph.D., Nineteenth-Century American Literature, Cultural Studies, Slave Narratives; Alice Dailey, Ph.D., Renaissance Literature; Heather Hicks, Ph.D., Post-World War II American Fiction, Postmodern Theory, Contemporary Cultural Studies; Karyn L. Hollis, Ph.D., Composition Studies; Joseph Lennon, Ph.D., Irish Studies and Post-Colonial Studies; Hugh Ormsby-Lennon, Ph.D., Augustan Literature, 18th Century Cultural Studies, 18th Century Anglo-Irish Literature, Literary Theory; Crystal Lucky, Ph.D., African-American Literature, 19th Century African-American Church History, Literary Pedagogy; Jean Lutes, Ph.D., Modern American Literature, Journalism, American Studies; Evan Radcliffe, Ph.D., British Romantic Literature, The French Revolution Controversy, Historicism; Lisa Sewell, Ph.D., Contemporary American Poetry, Poetics; Chiji Akoma, Ph.D., Post-Colonial Literature

Assistant Professors: Megan Quigley, Ph.D., British and Irish Modernism; Joseph Drury, Ph.D., 18th Century Literature and Culture; Kamran Javadizadeh, Ph.D., Modern American Poetry; Travis M. Foster, Ph.D., American Literature and Culture before 1900, Critical Race Theory, Digital Humanities, Gender, Sexuality, and Feminist Studies; Brooke Hunter, Ph.D., Medieval Literature and Culture, Chaucer

MASTER OF ARTS DEGREE IN ENGLISH

The Department of English offers a Master’s in English Literature and a Certificate. The curriculum balances a traditional, historical understanding of literary periods with newer, theoretically based considerations of writing and reading. This range of approaches provides students with expertise in much of the literature written in English, highly refined interpretive skills, and familiarity with the major intellectual currents shaping the discipline of literary study today. All courses are conducted as small seminars, with a maximum enrollment of fifteen students. In these seminars, students are asked to consider the primary texts in a variety of contexts, including the historical moment in which they were created, the body of literary criticism that has been generated concerning them, and contemporary theoretical paradigms that might shed light on their deep structures. Upon completion of coursework students have the option of either writing a thesis or taking a field examination. In either case, this final stage of the Master’s degree affords students an opportunity to pursue an area of interest deeply, while receiving extensive guidance from a faculty advisor of their choosing.
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Admissions Requirements
All applicants are required to submit the following:
1. Complete undergraduate transcripts
2. Three letters of recommendation from persons who can vouch for the applicant’s academic competence, preferably professors in the applicant’s major field
3. A one-two page statement outlining the applicant’s objectives
4. Graduate Record Examination scores
5. Brief writing sample, preferably a critical essay of app. 10 pages.

Application Deadlines
The deadline for applications for the Fall semester is March 1, for the Spring semester November 15. Applications for assistantships or tuition scholarships must be received by March 1.

Degree Requirements
1. Completion of a total of 30 credits
2. A thesis (3 credits) or a combined oral/written examination (3 credits)
3. Students are expected to take one course in American literature pre-1900 and one course in British/Irish literature pre-1800.

Students must maintain an average grade of “B” or better each semester to remain within the program. Students will normally complete the program within two years, taking two to three courses each semester. Students must complete the degree within a period of six (6) years. Any student who allows more than one academic year to elapse between courses must apply for readmission to the program.

Thesis Option or Oral Field Examination Option
All students must submit a thesis (3 credits) or successfully pass a combined oral/written field examination (3 credits) in partial fulfillment of the requirements for the M.A. degree. The coursework and the thesis or field examination are viewed as complementary, the first providing the critical base and broad range of study in a variety of areas, the second providing focus within a particular area. The thesis provides the opportunity for sustained critical examination of a work, author, or topic. The field examination is proposed after the student has completed a minimum of 27 credit hours of coursework. The examination comprises two parts: (a) a “comprehensive statement” and (b) an oral examination by committee based on a reading list designed by the student in consultation with his or her advisor. “Field” is understood to mean either the traditional historical field (e.g., Renaissance, Eighteenth Century), major genres (e.g., novel, drama), or a field of the student’s own definition and organization.
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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>ENG 8102</td>
<td>Old English Language and Literature</td>
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<td>ENG 8104</td>
<td>Middle English Language and Literature</td>
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<td>ENG 8106</td>
<td>Topics in Medieval Literature</td>
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<td>ENG 8150</td>
<td>Chaucer’s Canterbury Tales</td>
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<td>ENG 8151</td>
<td>Chaucer’s Troilus and Criseyde and Minor Poems</td>
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<td>ENG 8250</td>
<td>Shakespeare’s Early Plays</td>
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<td>ENG 8251</td>
<td>Shakespeare’s Later Plays</td>
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<td>ENG 8260</td>
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<td>ENG 8310</td>
<td>Seventeenth Century Poetry and Prose</td>
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<td>ENG 8350</td>
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<td>English Drama, 1660-1780</td>
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<td>ENG 8501</td>
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<td>Topics in Modern British Literature</td>
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**American Literature**

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<td>ENG 7055</td>
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<td>American Poetry to 1990</td>
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<td>American Fiction to 1900</td>
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<td>ENG 9530</td>
<td>Topics: Nineteenth Century American Literature</td>
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<td>ENG 9540</td>
<td>Topics in Modern American Literature</td>
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<td>ENG 9610</td>
<td>American Poetry: 1900-1950</td>
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<td>American Fiction: 1900-1950</td>
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<td>American Poetry: 1950 to Present</td>
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<td>American Fiction: 1950 to Present</td>
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<td>Open Seminar</td>
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**Other**

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<td>ENG 7200</td>
<td>History of the English Language</td>
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<td>ENG 8000</td>
<td>Critical Theory</td>
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<td>ENG 8010</td>
<td>Seminar: Research and Bibliography</td>
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<td>ENG 8020</td>
<td>Composition and Literacy Studies</td>
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<td>ENG 8081</td>
<td>Seminar: Methods of Teaching Composition</td>
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<td>ENG 9031, 9032</td>
<td>Independent Study</td>
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<td>9035</td>
<td>Professional Research Option</td>
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<td>9080</td>
<td>Thesis Continuation</td>
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<td>9800</td>
<td>Internship in the Teaching of English</td>
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**ENG 7055 Topics: African-American Literature** An in-depth study of literary works by African-American writers; area of emphasis (e.g., the novel, drama, poetry) determined by the instructor. (3 cr)

**ENG 7200 History of the English Language** Development of the English language from Anglo-Saxon times to the present. (3 cr)

**ENG 8000 Critical Theory** The chief schools of critical and literary theory from ancient to modern times. (3 cr)

**ENG 8010 Seminar: Research and Bibliography** The main areas of literary scholarship and the methods and tools of research in English and American literature. (3 cr)

**ENG 8020 Composition and Literacy Studies** This course is designed to introduce graduate students to the range of concerns and methodologies in composition and literacy research. (3 cr)

**ENG 8090 Thesis Direction I** Direction of writing of the thesis under supervision of an individual instructor. (3 cr)
ENG 8092 Field Examination (oral/written) (3 cr)

ENG 8102 Old English Language and Literature Introduction to the language and literature of the Anglo-Saxon period. (3 cr)

ENG 8104 Middle English Language and Literature Broad survey of writings from the 12th to the 15th century. (3 cr)

ENG 8106 Seminar: Topics in Medieval Literature Selected topics on Old and Middle English literature. (3 cr)

ENG 8150 Chaucer’s Canterbury Tales In-depth study of the Canterbury Tales. (3 cr)

ENG 8151 Chaucer’s Troilus and Criseyde and Minor Poems In-depth study of Chaucer’s Troilus, Book of the Duchess, House of Fame and selected minor works. (3 cr)

ENG 8250 Shakespeare In depth study of Shakespeare’s works. (3 cr)

ENG 8260 Topics: Renaissance Literature Topics chosen according to instructor’s area of expertise. (3 cr)

ENG 8310 Seventeenth-Century Poetry and Prose Secular and religious lyrics, and selected prose works of the period 1600-1660. (3 cr)

ENG 8350 Milton The minor and major poems of Milton; some prose works. (3 cr)

ENG 8420 Eighteenth-Century British Fiction The works of Richardson, Fielding, Sterne, and other major novelists. (3 cr)

ENG 8430 English Drama, 1660-1780 The development of English drama from Dryden to Sheridan; also included are readings from the works of Addison, Congreve, Etherege, Farquhar, Fielding, Steele, and Wycherley. (3 cr)

ENG 8450 The Age of Neo-Classicism The principal writings of Dryden, Swift, Pope, Johnson, Boswell, and several minor writers of the period. (3 cr)

ENG 8460 Topics in Eighteenth Century British Literature Topics chosen according to instructor’s area of expertise. (3 cr)

ENG 8501 The Age of Romanticism Chief poets and prose writers of the Romantic period. (3 cr)

ENG 8505 Victorian Prose Chief prose writers of the Victorian period. (3 cr)

ENG 8506 Victorian Poetry Tennyson, Browning, Arnold, Hopkins, and other poets of the Victorian period. (3 cr)

ENG 8520 Nineteenth-Century British Fiction Development of the novel in England from Jane Austen to Thomas Hardy. (3 cr)

ENG 8560 Topics in Nineteenth Century British Literature Topics chosen according to instructor’s area of expertise. (3 cr)

ENG 8610 Modern British Poetry Chief British poets of the twentieth century. (3 cr)

ENG 8620 Modern British Fiction Significant works by the major novelists, principally of the twentieth century. (3 cr)

ENG 8630 Modern British Drama Chief British dramatists and their work. (3 cr)

ENG 8640 Topics in Modern British Literature Topics chosen according to instructor’s area of expertise. (3 cr)

ENG 9031, 9032 Independent Study I, II Special project pursued under the direction of an individual professor. (3 cr)
EN G 9035 Professional Research Option
Special project, related to professions in which an advanced degree in literature is of benefit, pursued under the direction of an individual professor. (3 cr)

ENG 9080 Thesis Continuation

ENG 9510 American Poetry to 1900
American poetry from Puritan times to the end of the nineteenth century. (3 cr)

ENG 9520 American Fiction to 1900
The rise and development of the American novel in the nineteenth century. (3 cr)

ENG 9530 Topics in Nineteenth-Century American Literature
Topics chosen according to instructor’s area of expertise. (3 cr)

ENG 9540 American Fiction to 1900
Topics in modern American literature. (3 cr)

ENG 9610 American Poetry: 1900-1950
The chief poets and poetic movements of the twentieth century to 1950. (3 cr)

ENG 9620 American Fiction: 1900-1950
Significant works by major novelists of the twentieth century to 1950. (3 cr)

ENG 9640 Topics in Modern American Literature
Topics chosen according to instructor’s area of expertise. (3 cr)

ENG 9710 American Poetry: 1950 to the Present
The chief poets and poetic movements from 1950 to the present. (3 cr)

ENG 9720 American Fiction: 1950 to the Present
Significant works by contemporary American fiction writers since 1950. (3 cr)

ENG 9730 Open Seminar (3 cr)

ENG 9731 Topics in Literature
Topics chosen according to instructor’s area of expertise. (3 cr)

ENG 9800 Internship in the Teaching of English
Option for second-year graduate students to serve as intern for graduate faculty member in upper-level undergraduate English course. Interns will attend all class sessions, confer at least once with each student on written work, lead two-three class sessions under supervision of faculty member, and complete a final project that is either (1) a substantial critical essay concerning subject matter of course or (2) a research project concerning trends and issues within college-level pedagogy. Aim of program is to provide students with teaching and classroom experience. Students may apply to serve as interns by consulting with a faculty member who is teaching in area of interest, and, if the faculty member is amenable, submitting a one-two page statement, outlining how this course addresses their larger intellectual goals, and what they hope to accomplish as an intern. (3 cr)

GENDER AND WOMEN’S STUDIES
HISPANIC STUDIES

Professors: Mercedes, Juliá, Ph.D., (Chair) Hispanic Studies, translation skills. Silvia Nagy-Zekmi, Ph.D., Contemporary Latin American narrative and essay, literary theory, postcolonial, cultural, and gender studies; Carmen Peraita, Ph.D., Early modern Peninsular literature. Historiographic discourse, cultural studies.

Associate Professors: Salvatore Poeta, Ph.D., Peninsular poetry, theater and short narrative, literary theory and genre studies; Carlos Trujillo, Ph.D., Latin American poetry and novel, creative writing.

Assistant Professors: Adriano Duque, Ph.D., Director of Graduate Studies, Medieval literature, cultural studies, Christian and Muslim Spain; Julio Villa García, Ph.D. Spanish linguistics, Romance syntax and language acquisition.

Faculty serves as graduate committee.

HISPANIC STUDIES

www.hispanicgrad.villanova.edu. The Graduate Program in Hispanic Studies aims at preparing students to become first-rate scholars and teachers. It provides students with a critical and theoretical foundation in literary, cultural studies and linguistics, with ample opportunities for interdisciplinary work in areas of Hispanic literature and cultural studies. The Department prides itself on its small classes and warm, friendly atmosphere in which interaction between faculty and students is encouraged. In and out of class, students enjoy an open and supportive environment.

Admission requirements are: B.A. degree in Spanish or related field with at least 24 credits in Spanish with a B average or better, three letters of reference, a writing sample in Spanish, a personal statement in English, three letters of recommendation in English or Spanish, transcripts, and for students with foreign degrees a minimum* score on the TOEFL exam of 550 (paper-based test) or 80 (internet-based test). Graduate Record Examination (GRE) test scores are not required.

The M.A. program consists of 30 credit hours of course work and may be completed by full-time students in two years, and offers Teaching Assistantships, and Tuition Scholarships on a competitive basis.

After completing the 30 credit hours with a minimum 3.0 average (3.5 for Teaching Assistants) students must take the M.A. comprehensive examination based on coursework and the reading list.

Graduate Certificate of Advanced Study in Hispanic Literature

Pre-Master’s Certificate:
Upon completing 18 semester graduate credit hours of Hispanic Studies with a minimum GPA of 3.0, students who do not already have a Master’s degree may receive a pre-Master’s certificate of Advanced Study.
Graduate Studies

Post-Master’s Certificate:
Those who already hold an M. A. degree in Spanish, may pursue specialized study in Hispanic Literature or Cultural Studies for a post-Master’s certificate. Upon completion of 15 credits with a minimum GPA of 3.0 the student will be awarded a post-Master’s certificate.

5 year Bachelors/Master’s program in Hispanic Studies
In the beginning of the second semester of their Junior year (normally in January), qualified Villanova Spanish majors may express an interest in applying to earn an MA in Spanish in conjunction with their BA degree within a total of 5 years of study. Admission Criteria: a cumulative GPA of at least 3.0 and a GPA in the major of at least 3.5, at least 15 SPA credits above the intermediate level completed by the end of the Junior year.

DEPARTMENTAL PROGRAM
SPANISH

SPA 7410 Latin American Poetry Poetry of Spanish America from colonial times through the Romantics and from the modernists to the present. (3 cr)

SPA 7420 Literary and Cultural Theories A broad introduction to mostly 20th century literary and cultural theories (formalism, post/structuralism, deconstruction) will provide students with necessary theoretical tools to carry out analysis of literary texts and other cultural phenomena. (3 cr)

SPA 7430 Hispanic Masterpieces Study of major works included in the AP reading list within their literary context using the necessary analytical tool. Designed for high school teachers.

SPA 7440 Special Topics Advanced study of topics of special interest in Hispanic Literature. Topics to be arranged. Course may be repeated for credit. (3 cr)

SPA 7450 Cultural Authority in Early-Modern Spain The question of authority conceived in cultural terms and the problem of the subject. (3 cr)

SPA 7451 Cervantine Spain An interdisciplinary approach to Cervantes’ Spain. (3 cr)

SPA 7457 Spanish Comedia and Baroque Social Order An approach to the ideologies of discourse in 17th Century Comedia. (3 cr)

SPA 7470 Poetics in Early Modern Spain Examines the socio-humanist and theo-philosophical revolution of Spanish society of the 16th and 17th centuries through its foremost poets. (3 cr)

SPA 7491 Contemporary Spanish Stage Examines the dichotomy between socio-political repression and conformity and protest in Spain of the XX and XXI centuries through representative dramatists. (3 cr)

SPA 7492 Readings in Spanish Modernism A study of Spanish modernism, showing how imported images and pessimistic ideologies from Europe helped shape the Spanish culture of the first part of the twentieth Century. (3 cr)

SPA 7493 Contemporary Poetic Voices of Spain Lyric poetry of Spain from the beginning of the twentieth century to present day against the background of European historical, socio-cultured, philosophical and artistic consciousness. (3 cr)
SPA 7494 Politics of Space in Spanish Medieval Literature Analyzes the politics of Spain in Medieval Castille by examining works of different genres such as the Romancer and Spanish Epic poetry. The relation between the meaning of private and public sphere in medieval literature and the political discourse of Christian rulers will be scrutinized. (3 cr)

SPA 7502 A Spanish Applied Linguistics Analyzes contemporary theory, research, and practice surrounding the acquisition and use of Spanish in bilingual and multilingual settings. (3 cr)

SPA 8540 The Idea of Nature in the Middle Ages Examines literary representation of the relation between human beings and the natural world as it has been conceived by Medieval Spanish writers. The literary works studied will focus on the period between the 10th and the 15th centuries, coinciding with the beginning of the Spanish reconquista. (3 cr)

SPA 8580 Religion and Politics in Medieval Literature The creation of historical Memory in Spanish Medieval Literature. By studying works like the Poema de Fernan Gonzalez and the Cantar de Mio Cid, and Syrian hagiographic material, the course attempts to shed light on the intersection of religion and politics in Medieval Spain. (3 cr)

SPA 8598 Discursos de la memoria Hispanic narrative or poetic discourses (testimonio, autobiography, memoir) that reflect individual or collective memory. (3 cr)

SPA 8599 Postmodernity and the Spanish Novel A study of major authors and artists that comprise the cultural and aesthetic revolution that began approximately in 1950 and continued with new directions to today. (3 cr)

SPA 9520 History of the Spanish Language The development from Latin, Vulgar Latin and Old Spanish, and a study of current linguistic trends. (3 cr)

SPA 9556 Spanish Sociolinguistics An introduction to the theoretical foundations of sociolinguistic variation (dialectal, social, historical, dialect/language contact) in Spanish-speaking communities. (3 cr)

SPA 9575 Hispanic Cultural Studies Reviews major concepts of cultural studies, such as subjectivity and consciousness, ideology and hegemony, critique and polisemy and their manifestation in Hispanic texts. (3 cr)

SPA 9580 Post/Colonia: Dialogos textuales The course is focused on the representation of the violent encounter of two worlds. The chronicles written by indigenous and European authors are analyzed with the help of critical sources based on postcolonial and other cultural theories.

SPA 9582 Postmodern Fiction of Latin America Study of postmodern fiction written in the last two decades, dealing with exile, collective memory, marginality, gender and urban violence as part of the post-dictatorship imaginary. (3 cr)

SPA 9583 Women's Voices of Latin America Texts written by representative Latin American women writers focusing on “the women question” will be discussed in their cultural and historical context.

SPA 9584 Latin American Short Story Short story in Latin America examined through literary analysis. Readings include stories by North American and Latin American authors. (3 cr)

SPA 9588 Theater in Latin America Study of contemporary Latin American theater (text and stage) through historical, sociological and literary analysis of works from various leading dramatists. (3 cr)
HISTORY

Professors: Marc Gallicchio, Ph.D., U.S. Foreign Relations, American Political, Military; Judith Giesberg, Ph.D., U.S. Civil War, Women’s History; Jeffrey A. Johnson, Ph.D., History of Science and Technology, European Historiography; Maghan Keita, Ph.D., African, African-American, World; Adele Lindenmeyr, Ph.D., Russia, Soviet Union;

Associate Professors: Hibba E. Abugideiri, Ph.D., Islamic Civilization and Modern Middle East; Craig Bailey, Ph.D., Ireland and Britain; Christopher Haas, Ph.D., Greece, Rome, Late Antiquity, Early Christianity; Catherine Kerrison, Ph.D., Colonial and Federal America, Women’s History; Elizabeth Kolsky, Ph.D., South Asia; Lawrence Little, Ph.D., African-American; Timothy McCall, Ph.D., History of Renaissance Art;

* Paul C. Rosier, Ph.D., Post-1920 U.S. History;
Paul R. Steege, Ph.D., Post-1945 Europe; Mark Sullivan, Ph.D., History of Modern Art; Rebecca L. Winer, Ph.D., Medieval Europe, Women’s History, Jewish History

Assistant Professors: Lynne Hartnett, Ph.D., Russia, European Women’s History; Andrew Liu, Ph.D., East Asia; Whitney Martinoko, Ph.D., Public History and Early Republic; Rev. Joseph Ryan, O.S.A., Ph.D., American Religious History, History of American Medicine; Cristina Soriano, Ph.D., Colonial Latin America and Caribbean;

*Department Chairperson

DEPARTMENTAL REQUIREMENTS
Eighteen undergraduate credits in history, at least half of them upper division, and the Graduate Record Examination General Test are normally required for admission to the program. Three letters of recommendation should be transmitted to the Office of Graduate Studies. A writing sample in history is required and can be uploaded in the online application or emailed directly to the department.

Applicants to the program must also submit to the Office of Graduate Studies a brief statement (250-500 words) discussing their particular fields of interest in history, their objectives in seeking the M.A., and their career plans.

The deadline for applications for the Fall semester is May 1, for the Spring semester November 15, and for the Summer session May 1. Applicants requesting tuition scholarships or graduate assistantships should submit their applications by February 1.

The program for the Master of Arts in History emphasizes broad understanding, interpretation, and analysis. While the department retains strengths in the US, Europe, Latin America, and Asia, the curriculum features a strong emphasis on Public History. The program encourages students to pursue transnational developments that spanned larger regions or that bound together distant cultures. The objective of the program is to lead the student to probe beneath the surface of events so that those that teach history may do so with a deeper understanding of their subject and the various approaches to it, and so
that all, regardless of vocation or objectives, may more fully appreciate the value of studying society by means of historical investigation. The program provides opportunities for research and specialized training for students contemplating further work at the doctoral level. Faculty collaborate with local museums and cultural institutions to provide students with experience in public history and to train interested students to find work in non-profits. Given the importance of interdisciplinary work, students may take, with permission, up to two non-department graduate courses in subjects related to the student’s field of study.

Thirty credits are required for the degree. In close consultation with an academic advisor, students choose a field of concentration from the following:

1. Africana
2. Americas
3. Asia
4. Atlantic World
5. Europe
6. United States
7. Empire
8. Industrial Societies
9. Intellectual History
10. Race and Ethnicity
11. Religion
12. Revolution
13. State and Society
14. Women and Gender
15. Chronological Concentration
16. Public History Concentration
17. Self-Designed Concentration

Students must take at least 12 credits in their concentration. In addition, all students are required to take one historiography class, chosen from a number of options. The remaining five courses are free electives that students may use to add to their concentration or to pursue wider interests.

Students are required to successfully complete a written comprehensive examination, often during their last semester of course work. This is composed of a two-hour examination on their concentration and two one-hour examinations based upon a list of questions that all students are given at the beginning of their course work.

**Combined MA in History and Certificate in Non-Profit Management**

This combined program provides a unique opportunity to graduate students in history who are interested in pursuing careers in public history, administration of historical sites and museums, and related positions. The program educates the student in the pragmatic skills necessary for managing and promoting the political, economic, and administrative elements of public historical institutions while providing them with in-depth knowledge and experience in historical research, historiography, and methodology.

The combined Masters/Certificate Program requires students to take 36 credits (instead of the 30 credits required for the History MA degree). Four of the required 12 classes are taken in the Master of Public Administration (MPA) Program.
Program Objectives:
1) Educate students to become knowledgeable administrators and leaders in the public history community through training in historical research, professional practice, and educational outreach.
2) Provide students with the practical knowledge for the establishment and advancement of non-profit organizations, particularly those related to history.

Admission and Completion Requirements
Applicants must be evaluated and accepted by both the History Department for its Masters program and the Masters in Public Administration program for its Non-Profit Certificate program. The same admission standards that apply for the MPA Program will apply for students in the History MA/Certificate program.

Required Courses:
24 History credit hours or 8 courses from the history curriculum, one of which must be History 8702, Introduction to Public History.
12 credit hours or 4 courses from the Masters in Public Administration’s Certificate in Nonprofit Management.

History 8702 Introduction to Public History will be accepted for credit in both programs.

Total Credits: 36 (History 24 + MPA 12)

History: 24 credits:
- Historiography 3 cr
- Concentration 12 cr
- History 8702, Introduction to Public History 3 cr
- Electives 6 cr
The remaining 6 credits required for the MA in History are fulfilled by two MPA courses.

Masters in Public Administration Certificate in Nonprofit Management: 12 credits
MPA 8003 Financial Management of Nonprofits,
MPA 8600 Effective Nonprofit Management
MPA 8700 Fundraising for Nonprofit Organizations
One elective. For a list of electives, see Appendix 2.
The remaining 3 credits required for the MPA Certificate are fulfilled by History 8702, Introduction to Public History

Post – Bachelors Certificate Program
The certificates are designed for all who wish to continue taking courses after they have earned a Bachelors degree. The program is open to all who wish to continue their formal study of History but do not plan to pursue another degree. The certificates are especially well suited to the needs of secondary and middle school history and social studies teachers. Those who possess a Bachelor of Arts degree in history from Villanova University or any other accredited university are eligible. Applicants who hold degrees in other
fields may also be admitted, subject to the approval of the history department’s Graduate Steering Committee.

The Post-Bachelor’s Certificate program can be tailored to the student’s specific needs. Students may choose from the history department’s regular course offerings on the basis of their own interests and needs. Students must complete 15 credits to be awarded a certificate. Students may earn multiple certificates.

The five available Certificates in history are:

1. Graduate Study in History
2. Graduate Study in American History
3. Graduate Study in European History (before 1789)
4. Graduate Study in Modern European History (1789-present)
5. Graduate Study in World History

DEPARTMENTAL PROGRAM

Graduate Seminar Courses

8000-level courses are seminars open to graduate students and to qualified senior undergraduates with at least a 3.0 cumulative grade point average. Undergraduates need the permission of their advisor, the History department Chairperson, their College Dean, and the Graduate School Dean. (Red Permission Cards are available in the department.)

Seminars in North American History

HIS 8002 Seminar Topics in North American History (3 cr)

HIS 8003 Amer Women & Gender His
Topics in women’s and gender history in America from pre-contact to the present, analyzing the relative positions of men and women within the various contexts of race, region, religion, class, ethnicity, law, sexuality, and society. (3 cr)

HIS 8011 Amer Societies in Colonial Era to 1750 Colloquium on the Anglo-American colonies to 1750. The emergence of distinctive and diverse colonial societies; the response to the wilderness environment; the problem of race in early America. (3 cr)

HIS 8016 American Nation, 1750-1800
Colloquium on the revolutionary and Federalist eras. The movement toward revolution; the War of Independence; the emergence of new governmental structures; the Hamiltonian economic program and the organization of the first party system. (3 cr)

HIS 8021 Early Amer Republic
Study of selected topics on the Jeffersonian-Jacksonian eras, emphasizing the formation of the political and constitutional system, and including such topics as the party system, federal-state relationships, the presidency, and the emergence of popular democracy. (3 cr)

HIS 8026 American Civil War Studies
Selected research projects and readings on the era of the Civil War and Reconstruction, covering the origins of the conflict, the events of the war and its consequences. (3 cr)

HIS 8033 The Gilded Age, 1865-1900
Colloquium on the development of American history from Reconstruction to the turn of the century, focusing on the political, social and economic changes attending the emergence of an industrial and urban society in America. (3 cr)
HIS 8041 Roosevelt to Roosevelt The Progressive movement, World War I, Normalcy and the New Deal, examined through selected historical documents and secondary readings. (3 cr)

HIS 8042 The United States since the New Deal Domestic developments in the United States and its Cold War role from the Second World War until the Vietnam war, examined through selected historical documents and secondary readings. (3 cr)

HIS 8061 American Foreign Relations to 1914 Foreign relations of the United States from the Declaration of Independence to World War I, covering U.S. diplomacy during the territorial expansion, and the emergence of the U.S. as a great power. (3 cr)

HIS 8062 American Foreign Relations since 1914 Readings in and discussion of such major issues as the ideology of American expansionism, American entry into World War I, Woodrow Wilson and the New Diplomacy, independent internationalism in the 1920’s, the breakdown of the international system in the 1930’s, U.S. entry into World War II, the origins of the Cold War, the institutionalization of the Cold War, and the U.S. effort to adjust to the end of the Cold War. (3 cr)

HIS 8066 American Intellectual and Cultural History Aspects of modern American intellectual history, such as varieties of religious thought in the 19th century, the Darwinian revolution, the impact of Freudian psychology, and the influence of existential philosophies. (3 cr)

HIS 8071 Topics in Early American Social History Readings and discussion of selected topics in American social history to 1865, reflecting various social history perspectives and methodologies, including such subjects as the colonial economy, the social structure of the Revolutionary period, 19th-century cities and industry, and the ferment of reform. (3 cr)

HIS 8072 Topics in Modern American Social History Readings and discussion of selected topics in American social history since 1865, reflecting various social history perspectives and methodologies, and including themes related to industrialization, expansionism, and their effects. (3 cr)

HIS 8076 Topics in American Economic History Topics pertaining to the development of the American colonial economy, the rise of American industrialism in the nineteenth century, and the emergence of international American economic power and influence in more recent times. (3 cr)

HIS 8077 Topics in African American History During Slavery Selected topics on the development and experiences of the African American community during the age of slavery, including the African slave trade, bondage and freedom in North America, slave culture and society, the free black community, abolitionism, the Civil War, and Reconstruction. (3 cr)

HIS 8078 Topics in African American History Since 1865 Selected topics on the development and experiences of the African American community since the age of slavery, including Reconstruction, American apartheid, migration and urbanization, black nationalism, the Harlem Renaissance, the civil rights struggle, and race relations. (3 cr)

HIS 8081 Reconstruction Study of selected ethnic groups and major issues in American history involving immigration and ethnicity. (3 cr)

Seminars in European History

HIS 8202 Seminar Topics in European History (3 cr)

HIS 8204 Seminar Topics in Ancient History (3 cr)
HIS 8205 Ancient Mediterranean Issues in current historiography dealing with the cultures of the ancient Mediterranean, including state formation, social structure, economic life, and the interplay between imperial and indigenous cultures. (3 cr)

HIS 8206 Dark Ages Comparative anthropological analysis of two “dark age” cultures in European history: ancient Greece 1200-750 BCE, and western Europe, 400-900 CE with special attention to such topics as oral poetry forms of exchange, honor and status, ritualized behaviors, violence and social control, marriage and sexuality, and conceptions of the divine. (3 cr)

HIS 8207 Women & Gender in Europe 400-1650 A survey of women and gender in Europe from ca. 400-1650 AD in Western Europe both northern and Mediterranean. Analyzing the legal, economic, and cultural position of women within the contexts of the family, religion, sexuality and society. (3 cr)

HIS 8208 Medieval Europe Important historiography in English, along with literary, historical, and legal sources in translation, focusing on selected political, economic, intellectual, and social themes, such as courtly love, Muslim and Jewish culture in medieval Spain, the Black Death, peasant uprisings. Alternating between Medieval Mediterranean World (c. 1100-1400) and Medieval Britain (c. 1100-1400). (3 cr)

HIS 8209 The Renaissance The transformation of European culture in the Renaissance (14th-16th centuries) with special attention to the role of intellectuals; the function of ideas and attitudes in sociocultural change; philosophical and methodological issues in studying the Renaissance; and major historiographical trends. (3 cr)

HIS 8211 Reformation and Catholic Counter Reformation An examination of late medieval religion and society; the various Protestant Reformations; the Catholic Reformation; and the social and political dimensions of religious change in early modern Europe. (3 cr)

HIS 8225 The Enlightenment Selected topics in the social and intellectual history of eighteenth-century Europe, including philosophical critiques of the Old Regime, the rise of the bourgeoisie, and the condition of the peasants, especially in France. (3 cr)

HIS 8231 The French Revolution and Napoleonic Era An analysis of the causes, nature and course of the French Revolution, including a study of its historical interpretation, with additional coverage of the Napoleonic Era to 1815. (3 cr)

HIS 8235 British Economic Society, 1689-1815 The relationship between economic, social and cultural change in Hanoverian England, including such topics as mercantilism and war, women and family life, industrialization, the rise of the novel, metropolitan and provincial culture, political economy, and radicalism. (3 cr)

HIS 8241 European Nationalism, 1815-1870 Consideration of the nature of European nationalism, its origins, and factors leading to its successes and failures up to 1870. (3 cr)

HIS 8245 Great Britain since 1815 Major themes in the development of Great Britain from the end of the Napoleonic Wars until World War I: industrialism, political reform, the modernization of the state, the triumph of liberalism, and the rise of labor. (3 cr)

HIS 8248 Early Modern Ireland Analysis of Irish society from 1600 to 1800, examining the events and conditions that led to the turbulent 1790s, a pivotal decade in Irish history, with a particular focus on the writing of history and historical controversies. (3 cr)
HIS 8252 Modern France since 1815 France since the collapse of the Revolution: the Restoration, the 1848 Revolution, the Second Empire, the Paris Commune, World Wars I and II, modern French art and thought. (3 cr)

HIS 8262 Imperial Russia to 1917 An examination of selected problems in Russian history from 1800 to 1917, relying primarily on recent English-language scholarship, memoirs and literature. (3 cr)

HIS 8272 Europe on the Eve of World War I The development of the European state systems between 1870 and 1914, with special emphasis on the expansion of European imperialism in the colonial world. Historiographical analysis of the origins of the First World War. (3 cr)

HIS 8274 Twentieth Century Europe Readings and discussions on selected topics in European history from World War I to the present, with emphasis on post-World War II topics, such as the post-1945 division of Europe, the Cold War, and the decline of colonialism. (3 cr)

HIS 8275 European Imperialism Case studies of imperialism in various areas (the Mediterranean and Middle East, Asia, Africa) and in various forms during the period from the 1830s to World War II, examined from the perspective of both the imperialists and those subjected to imperialism; analysis of contemporary and historical arguments justifying and criticizing imperialism. (3 cr)

HIS 8279 Germany since 1945 An analysis of divided Germany in both its domestic and international aspects. Social, cultural and economic developments in both East and West Germany including reunification. (3 cr)

HIS 8281 Russia USSR 20th Century A study of the major events and issues in the political, economic and social history of Russia and the USSR, with emphasis on the period from 1917 to 1953. Focus on new research and historiographical debates. (3 cr)

HIS 8290 Women & Gender in Mod Europe Investigation of change and continuity in the social, scientific, political and cultural definitions of gender and gender roles from the Enlightenment to the modern era; the roles of women and representations of them in social and political movements, culture, and the economy; women’s relationship to the private and public spheres, and their involvement in war, revolution, and economic transformation in modern Europe. Readings will include both women’s and gender history and theory. (3 cr)

HIS 8292 European Intellectual History since 1850 Intensive study of themes in European intellectual and social history, such as Marxism in the twentieth century; Freudian thought and culture in the late nineteenth and twentieth centuries; capitalism, communism and fascism in modern Europe; religion and ethics in the nuclear age. (3 cr)

Seminars in World History

HIS 8402 Seminar Topics in World History Seminar on a selected topic of particular interest to faculty and students in World History. The topic will be announced in advance of registration. (3 cr)

HIS 8410 Atlantic World 1500-1800 A study of the Atlantic World in its imperial and economic aspects from the sixteenth through the eighteenth centuries, including Europe, the Americas, the Caribbean, and Africa. (3 cr)

HIS 8412 Colonial Latin America Indigenous civilizations; Iberian exploration and conquest; colonial institutions, including diversity within Catholicism; race, class, and cultural distinctions; the Enlightenment and Independence. (3 cr)

HIS 8414 Topics Latin American Hist Selected themes in Latin American History of interest to instructor and students. Topics will be announced prior to registration. (3 cr)
HIS 8416 Modern Latin America Selected topics including nationalism: indigenous and African cultural identities; economic development; industrialization; U.S. intervention; socialist revolutions; women’s movements; 20th and 21st centuries. (3 cr)

HIS 8421 China and Japan since World War II The politics of postwar China and Japan in their cultural and economic interrelationships. (3 cr)

HIS 8423 Women & Gender in East Asia Readings and discussion of selected topics pertaining to the history of gender and women in East Asia. (3 cr)

HIS 8425 Modern Japan A colloquium on the major historiographical issues in the history of Japan since 1600, including the role of the Emperor, economic development, and the causes of World War II. (3 cr)

HIS 8433 Imperial & Natlism in MidEast Empire, modernization and nation building in the Middle East from the nineteenth century, through an examination of historical narratives and debates; gender as a factor in imperialism and nationalism. (3 cr)

HIS 8436 Women & Gender in Middle East Women’s roles in Middle East societies with a particular emphasis on the influences of religion, culture, and class; analysis of women’s social status and their participation in social movements. (3 cr)

HIS 8441 Africa and Emergence from Colonialism An examination of the key issues of the pre-colonial and colonial eras and a study of the impact of these issues on the formation of modern African society. (3 cr)

HIS 8452 History of Modern South Asia Selected topics in the history of the Indian subcontinent from the late Mughal period through the British Empire to independence and the postcolonial period. Emphasis on knowledge, power, and state formation; resistance, revolution, and nationalism; gender, democracy and development; postcolonial legacies. (3 cr)

HIS 8454 Empire & Decolonization European empires & opposition to empire in Asia, Africa & the Americas, 1500-present. Emphasis on political, economic & cultural modes of domination & resistance. Interdisciplinary approach using historical, theoretical & literary readings on colonialism, nationalism & the post-colonial predicament. (3 cr)

Seminars in Comparative History

HIS 8602 Seminar Topics in Comparative History Seminar on a selected topic of particular interest to faculty and students in comparative history. The topic will be announced in advance of registration. (3 cr)

HIS 8603 Topics in the His of Rev The comparative history of modern revolutions, including causes and consequences, and the roles of such factors as ideology, language, violence, and war; Marxist and post-Marxist interpretations and historiography; case studies of revolutions in various regions of the world since the eighteenth century. (3 cr)

HIS 8613 Topics in Gender & Women’s His Studies of women and gender considered in non-western and transnational contexts, including such topics as women in the Third World, women and globalization, Third world feminism, and the feminization of poverty. (3 cr)

HIS 8642 Topics in the History of Science and Technology Comparative perspectives on selected topics concerning science and technology in modern history, from European Scientific Revolution to the present. (3 cr)
HIS 8648 Environmental History The influence of natural environmental forces on human activity and historical change, and the changes in social and cultural attitudes towards nature and natural resources. Focus on Europe and the United States with examination of such topics as European expansion, the scientific revolution, industrialization, and environmentalist movements. (3 cr)

HIS 8662 Impact of War on Society War’s consequences for society in the 19th and 20th centuries in Europe and America, with some references to the Far East. (3 cr)

HIS 8682 The Cold War as History Origins, conduct, and outcomes of the Cold War, and analysis of evolving interpretations of this conflict and its significance. (3 cr)

HIS 8702 Intro to Public History Methods, theory, and practice of history outside the classroom, including historic sites, museums, archives, and other public history settings. Interaction with public history professionals and investigation of issues of history and memory in public settings. (3 cr)

HIS 8704 Material Culture Artifacts as sources for understanding past cultures, with emphasis on both academic scholarship and the field of public history. Development of material culture studies, methods of material culture analysis; artifacts as sources for historians; and the role of artifacts in museum exhibitions. (3 cr)

HIS 8800 Topics in Historiography An examination of selected historical methodologies or recognized subfields of historical writing and research of interest to students and faculty. (3 cr)

HIS 8802 Seminar in American Historiography An examination of selected American historians and historical problems. Readings in the works of significant historians; research and reports by students. (3 cr)

HIS 8804 Seminar in Eur Historiography An examination of selected European historians and historical problems. Readings in the works of significant historians; research and reports by students. (3 cr)

HIS 8806 Historiography of Gender An examination of selected historians and historical problems in the study of women and gender. Readings in the works of significant historians; research and reports by students. (3 cr)

HIS 8900 - 001 Topics in Digital History Introduction to the field of digital history and to the methods and tools. (3 cr)

Advanced Graduate Courses

9000-level courses are open to graduate students only.

HIS 9002 Research Seminar A research seminar of particular interest to faculty and students. The topic will be announced in advance of registration. (3 cr) For graduate students only.

HIS 9006 Graduate Internship in Public History Internships at area public history sites arranged and supervised by members of the faculty. Practical experience in public history, opportunities to advance historical knowledge, skills, and understanding while applying them to contemporary situations and problems. Graduate students may take this course only once. For Graduate students only: permission of graduate program director required. (3 cr)

HIS 9012 Directed Readings in History Independent study and reports on selected topics. (3 cr) Permission of the instructor and approval of the graduate chairperson are required.

HIS 9022 Thesis Direction I Supervised research for students writing master’s theses. (3 cr) Permission of the graduate chairperson is required.
**HIS 9032 Thesis Direction II** Supervised research for students writing master’s theses. This course may be taken concurrently with HIS 9022. (3 cr) Permission of the graduate chairperson is required.

**HIS 9042 Internship in the Teaching of History** An option for graduate students, normally in their second year of studies, to gain teaching experience under graduate faculty supervision. Graduate students might lead discussions of assigned readings, present a few lectures to undergraduate classes, hold remedial or supplementary tutorials, or assist in devising and evaluating quizzes, examinations, and paper assignments. The internship is designed to assist graduate students in gaining teaching and classroom experience. Internships are by faculty invitation only, but students may express an interest; consult the graduate or departmental chairperson. (1 cr)

**HIS 9080 Thesis Continuation** Continuation of supervised research for students writing master’s theses. Permission of departmental chairperson is required.
HUMAN RESOURCE DEVELOPMENT

Professor: David F. Bush, Ph.D., Founding Director, Organizational Change Management, Staffing and Selection, and Human Resource Metrics
Assistant Professor: Katina Sawyer, Industrial-Organizational Psychology, Diversity in the Workplace
Lecturers: Partial listing Lawrence Cozzens, Ph.D.; Kenneth J. DeCarlo, M.S., HRD; Angela Francesco, J.D.; James Houston, J.D., M.S., M.B.A., Ronald Preston, M.S., Diane Lirio, M.S., Ronald Adler, M.S., Megan Mulka, M.S., Gavan O’Shea, Ph.D.; Richard Powell, M.B.A.; Stuart Smith, Ph.D.

PROGRAM DESCRIPTION
Human resource development is a comprehensive program designed to provide students with a fundamental understanding of critical concepts pertaining to the field of Human Resources. This program fosters the development of knowledge and skills for direct application in the field. Courses create a practical environment, permitting students numerous opportunities to perform many of the activities that practitioners encounter on a daily basis. Professionals in the field teach selected courses thereby adding value to the program. The classes are enriched through the combination of professionals with years of HR and business experience, students returning to school and students launching their careers. Graduates of the program not only expand their general professional knowledge in HR but also acquire new and specific skills in strategic planning, as well as analytical and research methods. This program is offered either on-campus or online. The description below primarily describes the campus-based program. For information on the online program, please visit gradartsci.villanova.edu and look for this online program in the list of all programs.

ADMISSION REQUIREMENTS
In addition to meeting the general requirements for admission to the graduate school, an applicant should have a bachelor’s degree preferably with a major in an area of the social or behavioral sciences, though applicants from other disciplines will be given serious consideration. All applicants are required to submit the Graduate Record Examination scores for the general aptitude test.

In addition to university supported graduate assistantships and tuition scholarships, there is an endowed fellowship available to support a graduate student enrolled on a full-time basis in the Human Resource Development Program. Applicants are invited to apply for the Rohm & Haas Company James C. Tabb Fellowship.

PROGRAM REQUIREMENTS
To meet the requirements for the degree, students must successfully complete the required and elective courses outlined below. The pattern of elective course work will vary according to the professional objectives of the student. Typically, a student's program will total between 30 and 33 semester hours. Students should plan their program of studies with their advisor before registering for any course work, and are required to meet with their advisor each semester for advice and guidance.
For the degree, the student is also required to have professional work experience. A student entering the program who does not have the required professional work experience in his or her area must undertake an internship that involves an approved field placement in an organization and registration in HRD 8010. The HRD 8010 Internship counts as 3.0 credits or semester hours and therefore the students requiring the internship would need 33 credits to qualify for graduation. The fulfillment of the internship will be based upon the consultation of the student with the advisor. Internships require work of no less than 120 hours. The program advisor and director will assist the student in securing an appropriate internship. Students with the requisite professional work experience may submit a formal request to the HRD office for a waiver of the HRD 8010 internship requirement.

The final requirement for the degree is the passing of a written comprehensive examination in HRD. Professional certification examination results for the PHR/SPHR exam and Assurance of Learning Assessment (AOALA), may be accepted in lieu of the comprehensive examination. Contact your advisor for additional information.

It is strongly suggested that all students have access to a laptop computer for use in Statistics, Personnel Administration and HRTS classes.

All course registrations must be completed and endorsed by the director.

Special Note: There are four (4) Psychology courses offered as part of the HRD curriculum. Two of these are required courses - PSY 8475 and PSY 8875.

REQUIRED COURSES
HRD 8003 Financial Management
HRD 8006 Metrics & Research
HRD 8010 Internship in Human Resource Development
HRD 8210 Workforce Planning
HRD 8215 Employment Law
HRD 8319 Intro to HR
PSY 8475 Organizational Training
PSY 8875 The Psychology of Organizational Change

ELECTIVES
HRD 8012 Individual Research in Human Resource Development
HRD 8212 Compensation
HRD 8213 Benefits
HRD 8214 Human Resource Technology Solutions
HRD 8216 Talent Management
PSY 8425 Organizational Psychology
PSY 8825 Psychology of Personnel Administration
HRD 8499 Special Issues in HRD
**ONE CREDIT COURSES**

The number of courses will vary each semester. Please check the master catalog for the courses given for the current semester. Six one-credit courses may be used to substitute for two three credit electives. The one credit courses are graded A through F.

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>HRD 8321</td>
<td>Sarbanes-Oxley Act &amp; Corporate Ethics</td>
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**REQUIRED COURSES**

**HRD 8003 Financial Management (For-Profit)** Emphasizes financial management and budgetary skills for profit-making organizations. *(3 cr)*

**HRD 8006 Metrics & Research I** Presents planning techniques, statistical analyses and evaluation strategies as applied to for-profit organizations. Statistical analyses and research designs are discussed. *(3 cr)*

**HRD 8010 Internship in Human Resource Development** HR field experience in an organization. *(3 cr)* May be waived with appropriate experience.

**HRD 8210 Workforce Planning** Principles for developing, utilizing and conserving human resources through an examination of political, social and psychological systems impacting organizations. *(3 cr)*

**HRD 8215 Employment Law** Current legal issues affecting the human resource function. Will cover employment-at-will, EEO, sexual harassment and Supreme Court decisions. Application to human resources situations from the employer and employee perspective. *(3 cr)*

**ELECTIVES**

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<tr>
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| HRD 8319    | Introduction to HR Overview of the HR department within organizations. Its role and function in supporting the objectives and mission of companies will be discussed. *(3 cr)*
| HRD 8318    | Conducting HR Audits                             |
| HRD 8333    | Executive Coaching                               |
| HRD 8334    | Selection and Termination Part I                 |
| HRD 8335    | Selection and Termination Part II                |
| HRD 8336    | Safety in the Workplace                          |
| HRD 8338    | Recruiting and Retention                         |
| HRD 8339    | Performance Management                          |
| HRD 8344    | 360 Degree Feedback                              |
| HRD 8347    | HR Innovation                                    |
| HRD 8899    | Special Topics in HR                             |

**HRD 8011 Internship in Human Resources** Extension of HRD 8010

**HRD 8012 Individual Research in Human Resource Development** Individual research project conducted under the direction of a Human Resource Development faculty member. *(3 cr)* Pre-req: permission of the program's director and consent of the faculty member.
HRD 8212 Compensation  A survey of current Human Resource approaches to compensation emphasizing the motivational/productivity implications of these practices. (3 cr)

HRD 8213 Benefits  Approaches to benefits and the motivational and productivity implications of these practices. Diversity of benefits programs used by companies today will be discussed. (3 cr)

HRD 8214 Human Resource Technology Solutions  Technology and applications for human resources management. Software application used in a laboratory environment. (3 cr) Laptops recommended.

HRD 8499 Special Issues in HRD  Contemporary issues in Human Resource Development. Taught on an occasional basis to reflect critical and changing human resource topics. (3 cr)

PSY 8425 Organizational Psychology  An examination of human behavior in an organizational structure with special emphasis upon application of psychological principles to such practical areas as personnel administration, motivation, leadership, and organizational development. (3 cr)

ONE CREDIT COURSES

The number of courses will vary each semester. Please check the master catalog for the courses given for the current semester. Six one-credit courses may be used to substitute for two three credit electives. These one credit courses are graded A through F.

HRD 8301 Work/Life Balance  Survey of work/life balance issues, current programs in practice and policy in relation to recruitment, employee relations, compensation, benefits, training and organizational development. (1 cr)

HRD 8306 Competency Assessment  Review of the O*Net system to examine competencies required for jobs and how these competencies can be assessed. (1 cr)

HRD 8307 Selection and Termination  Reviews selection procedures including behaviorally based interviews and tests as well as appropriate ways to terminate employees. (1 cr)

HRD 8309 Project Management  An examination of the components of how projects should be planned, monitored and evaluated. (1 cr)

HRD 8312 Achievement Motivation  The seminar examines issues involved in providing incentives and other interventions to increase employee motivation. (1 cr)

HRD 8317 HR Technology Basics  A survey of current human resource technology solutions such as PeopleSoft, SAP and others, currently used by organizations. (1 cr)

HRD 8320 Consulting in Human Resources  A review of the components of HR consulting with an emphasis on business development in a tight economy. Some of the material will be derived from a series of Consultant’s Forum Workshops that were conducted at the SHRM National Convention held in Philadelphia. (1 cr)

HRD 8321 Sarbanes-Oxley Act & Corporate Ethics  Reviews of Enron disaster and other cases that prompted the Sarbanes-Oxley Act (SOX), the influence of McKinsey on critical strategy development of executives. Kohlberg and similar investigators discussed. (1 cr)

HRD 8328 Finding Talent  Examines current issues and future trends and how demographic changes, world economy, and technological advances have made a dramatic impact on organizations. (1 cr)
HRD 8331 **Conducting HR Audits** Studies critical issues when conducting HR audits and other HR assessments. Concentrates on use of internal controls, HR metrics, HR auditing tools and methodologies, including ELLA® and the HR competencies needed to identify and manage HR related risks. (1 cr)

HRD 8333 **Executive Coaching** An examination of the step by step approach to coaching for improved employee performance. (1 cr)

HRD 8344 **360 Degree Feedback** Review of the multisource feedback system (MSF), also known as 360 degree systems. Examines the process of obtaining feedback on an employee’s job performance from a variety of different rater groups. Addresses key issues when designing, developing, and implementing MSF programs. (1 cr)

HRD 8899 **Special Topics in HRD** Contemporary topics in Human Resource Development. Taught on an occasional basis to reflect critical and changing human resource topics. (1 cr)
HUMAN RESOURCE DEVELOPMENT

Pre-Master’s Certificate in Human Resource Development
The Pre-Master’s Certificate provides an opportunity for Baccalaureate Degree recipients to continue their education and keep up-to-date on current HR issues. It affords students an opportunity to explore their interest in seeking a Master’s Degree in HRD. Additionally, for those HR professionals needing course work for certification (PHR, SPHR), this program will be very helpful.

ADMISSION REQUIREMENTS
In addition to the general admission requirements for graduate school, which include a Baccalaureate Degree and one transcript (including GPA) from previously attended colleges and/or universities, the applicant must provide three letters of recommendation, and current resume.

Note: No GRE requirement for the Pre-Master’s Certificate Program

PROGRAM REQUIREMENTS
To meet the requirements for the certificate, students must successfully complete four (4) three-credit courses and three (3) one-credit courses from the selection listed below. Two of the four three-credit courses are required. They are HRD 8210 Workforce Planning and PSY 8875 Psychology of Organizational Change. The pattern of course work will vary according to the professional objectives of the student. Each student’s program will total 15 semester hours. Students should plan their program of studies with an advisor before registering for any course work, and should meet the advisor each semester for advice and guidance. At the completion of 15 credits, the student may choose to continue on for the M.S. degree. At that time, the student is required to submit GRE scores and be re-evaluated.

All course registrations must be completed and endorsed by the student’s advisor.

THREE CREDIT COURSES

HRD 8012 Individual Research in Human Resource Development
HRD 8210 Workforce Planning
HRD 8212 Compensation
HRD 8213 Benefits
HRD 8214 Human Resource Technology Solutions
HRD 8215 Employment Law
HRD 8319 Intro to HR
PSY 8425 Organizational Psychology
PSY 8475 Organizational Training
PSY 8875 The Psychology of Organizational Change
HRD 8499 Special Issues in HRD
ONE CREDIT COURSES
HRD 8301 Work/Life Balance
HRD 8306 Competency Assessment
HRD 8307 Selection and Termination
HRD 8309 Project Management
HRD 8317 HR Technology Basics
HRD 8321 Sarbanes-Oxley Act & Corporate Ethics
HRD 8328 Finding Talent
HRD 8331 Conducting HR Audits
HRD 8333 Executive Coaching
HRD 8344 360 Degree Feedback
HRD 8899 Special Topics in HRD

Please contact the HRD office for a comprehensive list.
The Post-Master’s Certificate provides an opportunity for Master’s Degree recipients to continue their education and keep up-to-date on current HR issues.

ADMISSION REQUIREMENTS
In addition to meeting the general requirements for admission to the graduate school, an applicant should have a Master’s degree preferably with a major in Human Resources. All applicants are required to submit transcripts (including GPA) from previously attended institutions, three letters of recommendation, and resume.

PROGRAM REQUIREMENTS
To meet the requirements for the certificate, students must successfully complete twelve (12) one-credit courses and one (1) three-credit from the selection listed below. The pattern of course work will vary according to the professional objectives of the student. Each student’s program will total 15 semester hours. Students should plan their program of studies with the advisor before registering for any course work, and should meet with the advisor each semester for advice and guidance.

All course registrations must be completed and endorsed by their advisor.

THREE CREDIT COURSES
HRD 8012 Individual Research in Human Resource Development
HRD 8210 Workforce Planning
HRD 8212 Compensation
HRD 8213 Benefits
HRD 8214 Human Resource Technology Solutions
HRD 8215 Employment Law
HRD 8319 Intro to HR
PSY 8425 Organizational Psychology
PSY 8475 Organizational Training
PSY 8875 The Psychology of Organizational Change
HRD 8499 Special Issues in HRD

ONE CREDIT COURSES
HRD 8301 Work/Life Balance
HRD 8306 Competency Assessment
HRD 8307 Selection and Termination
HRD 8309 Project Management
HRD 8317 HR Technology Basics
HRD 8321 Sarbanes-Oxley Act & Corporate Ethics
Graduate Studies

HRD 8328  Finding Talent
HRD 8331  Conducting HR Audits
HRD 8333  Executive Coaching
HRD 8344  360 Degree Feedback
HRD 8899  Special Topics in HRD

Please contact the HRD office for a comprehensive list.
Villanova University

LIBERAL STUDIES

Affiliated Faculty: Marylu Hill, Ph.D., Director, LST; Chara Armon, Ph.D., ACSP; Rachel Baard, Ph.D., ACSP; Michael Berthold, Ph.D., English; Peter Busch, Ph.D., ACSP; Christopher Daly, Ph.D., ACSP; Christopher Haas, Ph.D., History; Judith Hadley, Ph.D., Theology; Tim Horner, Ph.D., CPJE; Gregory Hoskins, Ph.D., ACSP; Jennifer Joyce, Ph.D., ACSP; Helen Lang, Ph.D., Philosophy; Crystal Lucky, Ph.D., English; Eugene McCarrah, Ph.D., Humanities; Paul Rosier, Ph.D., History; Brian Satterfield, Ph.D., ACSP; Mary Anne Schofield, Ph.D., ACSP; Sally Scholz, Ph.D., Philosophy; Mary Beth Simmons, M.F.A., University Writing Center; Peter Spitaler, Ph.D., Theology; Alexander Varias, Ph.D., ACSP; Kelly Welch, Ph.D., Sociology; Jonathan Yates, Ph.D., Theology

PROGRAM DESCRIPTION
The Master of Arts in Liberal Studies program allows students to shape their own course of study across the graduate curriculum in the humanities and social sciences. Through Liberal Studies, students can combine multiple interests through an interdisciplinary and coherent approach to graduate education.

ADMISSION REQUIREMENTS
Students with a bachelor’s degree from an accredited institution with a minimum grade point average of 3.00 will be admitted as degree candidates. The applicant must submit transcripts, two letters of reference and a statement of interest in Liberal Studies.

PROGRAM REQUIREMENTS
The M.A. in Liberal Studies requires the successful completion of thirty credits of graduate course work with a minimum grade point average of 3.0. The thirty credits, or 10 three-credit courses, consist of the following:

- Two (2) foundation courses (LST 7100 and LST 7101)
- Seven (7) courses chosen from either LST courses or courses in other graduate departments
- The Directed Readings course (LST 8000)

LST students begin the program with two Liberal Studies foundation courses, one ancient and one modern. The LST Foundation courses (Ancient and Modern) serve to give incoming LST students a broad background in some of the key texts and ideas of world civilization. In addition, they provide the LST students with an introduction to the skills and expectations which are consistent with graduate level work in the humanities and social sciences.

The course numbers are:

- LST 7100 Foundation/Ancient
- LST 7101 Foundation/Modern
After taking the required Foundation courses, the student is free to choose twenty-one credits (seven three-credit courses, or groups of three one-credit courses) from the regular graduate course offerings found within Liberal Studies or in the other graduate departments in the humanities and social sciences at Villanova. To ensure a breadth of exposure to multiple disciplines, students may take no more than three courses in any one graduate department (with the exception of Liberal Studies; students may take as many Liberal Studies courses as they wish). At the end of the seven courses, students take the Directed Readings course as a capstone to their studies.

All courses, including the Directed Readings requirement, will be selected by the student in consultation with his/her academic advisor. It is expected in completing the Liberal Studies program’s requirements that the student will select courses that form an integrated course of studies, either shaped by the student’s individual interests, or shaped through the Certificate programs (see below for a list of available Certificates through Liberal Studies).

**COMPLETING THE PROGRAM**

There are two requirements for completing the program: The *Directed Readings* course and the *Qualifying Portfolio*.

The *Directed Readings* course is a research course of the student's own design. It should explore a topic which has developed out of the student’s graduate work in Liberal Studies; it should also be a subject which the student wishes to pursue in greater depth. In addition, the Directed Readings experience enables the student to cap his/her graduate studies with a culminating essay or project. Many students choose to write a thesis (roughly 40 pages long), but depending on the topic and research/analysis methods, other project models may be more appropriate. The student should work closely with his/her advisor to decide on the format of the project. But whatever form it takes, the final result of the Directed Readings should be a significant and tangible work of graduate level research and analysis.

In addition, the student should work closely with the advisor throughout the process of reading, research, and writing. We recommend that the advisor set up a schedule with the student for the following submissions:

1. Thesis or project proposal (4-5 pages)
2. Reading list
3. Outline of project
4. Essay drafts
5. Final version of project/thesis

The student should follow the deadlines in the Graduate Academic calendar for the submission of the final project/thesis.
Villanova University

The thesis should conform to the academic standards of the primary discipline (including bibliographic citation method, research methods, etc). In addition, because Liberal Studies encourages interdisciplinary scholarship, we encourage students to draw on other disciplines where appropriate concerning the topic and research.

The **Qualifying Portfolio** consists of four papers originally submitted to satisfy the requirements for seminars taken in their normal course of study during the student’s coursework in Liberal studies. The papers should be representative of the student’s best work; in addition, the papers should indicate the scope and trajectory of the student’s course of studies. If an essay was submitted for the student's Directed Readings, that essay may be included in the portfolio. The papers may but need not be reworked by students prior to submitting them as part of their portfolio.

The portfolio will be reviewed by a committee that includes the student’s Directed Readings advisor, the Director of Graduate Liberal Studies, and one other faculty member familiar with the student’s work. The portfolio should also be accompanied by a short narrative (no more than five pages) describing why the student chose these papers, and how these papers demonstrate the trajectory of the student’s intellectual growth in Graduate Liberal Studies. There will thus be **five** items in the portfolio – four essays, plus the short narrative.

The committee will then judge the portfolio based on the following criteria:

- interdisciplinary breadth
- clear sense of trajectory
- mastery of the skills of critical research and writing on the graduate level

Once the committee has read through the portfolio, they meet with the student in a quasi-defense format to ask questions raised by the various papers and to allow the student to expand upon how these essays represent a summation of her work in Graduate Liberal Studies. The defense takes about an hour.

**BA/MA:**

In the beginning of the second semester of the Junior year, qualified Villanova undergraduates with a GPA of 3.25 or better may be invited to apply to earn an M.A. or certificate in Liberal Studies. Graduate courses may begin when the student who has been formally accepted into the program holds a “senior” status. A maximum of three graduate courses (taken in the student’s senior year) may be applied toward both the undergraduate and graduate degrees.
CERTIFICATES
The Graduate Liberal Studies program offers five certificates which may be pursued as part of the Master of Arts in Liberal Studies degree or as stand-alone certificates. The certificates are:

- American Studies
- Ancient Worlds
- Great Books
- Peace and Justice Studies
- Post-M.A. certificate

AMERICAN STUDIES: The Certificate in American Studies offers students the opportunity for the interdisciplinary study of America and American culture in an increasingly globalized world. Through their coursework, students will explore an integrated view of the American experience through history, politics, culture, literature, theology, art, and philosophy.

Requirements for the American Studies Certificate
The certificate requires 15 credit hours or 5 three-credit courses including the following:

- Introduction to American Studies (LST 7300)
- Four courses on American topics chosen from the LST selections or from a wide range of choices across the graduate catalog.

ANCIENT WORLDS: The Certificate in Ancient Worlds allows students to gain a deeper understanding either of the intersections of ancient civilizations, such as Greece, Rome, and Mesopotamia, or of one particular ancient civilization. They will have the opportunity to explore these civilizations through history, politics, culture, literature, theology, art, and philosophy.

Requirements for the Ancient Worlds Certificate
The certificate requires 15 credit hours or 5 three-credit courses, including the following:

- LST 7100– Foundation/Ancient (offers a broad background in some of the key texts and ideas of Antiquity)
- Four courses on ancient topics and/or authors chosen from the LST selections or from a wide range of choices across the graduate catalog.

GREAT BOOKS: The Certificate in Great Books allows students to explore the great books of human civilization.

Requirements for the Certificate in Great Books:
The certificate requires 15 credit hours or 5 three-credit courses including the following:

- Two LST Foundation courses (one ancient; one modern)
- Three courses designated as Great Books from among the LST selections or from selected offerings across the graduate catalog.
Peace and Justice Studies: The certificate in Peace and Justice Studies prepares students for or contributes to careers in social justice, advocacy, peacemaking, conflict resolution, journalism, teaching, and activism. Its focus is the development of leaders capable of assessing the conditions for creating social justice and maintaining peaceful relations. Certificate recipients will be prepared with background on the theoretical structures of justice as well as social, political, and historical praxis for peace and justice education.

Requirements for the Certificate in Peace and Justice Studies:

- Students must take one required course from the following regularly offered options at any time during their course of study (found in various departments, including Liberal Studies, Philosophy, and Theology): Catholic Social Teaching and Peacemaking or Theories of Justice or Social Justice or The Challenge of Peace
- Four electives from courses across the graduate curriculum which satisfy the Peace and Justice Studies requirements

POST M.A. CERTIFICATE: The Post-M.A. Certificate allows students who wish to extend or advance their graduate study in an interdisciplinary program to apply for admission in the program leading to the Post-Master’s Certificate in Interdisciplinary Studies.

Requirements for the Post-Master’s Certificate in Interdisciplinary Studies:

Certificate recipients will have successfully completed a total of 15 graduate credits including:

- One interdisciplinary LST course offered by Liberal Studies
- any additional 12 graduate credits (normally four more courses) that are approved by the Director of Liberal Studies. These additional 12 credits may be in LST or in at least two disciplines.

Required Courses for the Master of Arts in Liberal Studies degree:

- LST 7100 Foundations: Ancient
- LST 7101 Foundations: Modern
- LST 8000 Directed Readings Seminar

Additional Courses:

- LST 7102, 7103 (Great Books); LST 7104 (Arts); LST 7200, 7201, 7202 (Ancient Worlds); LST 7203, 7204 (Humanities); LST 7300, 7301 (American Studies); LST 7302, 7303 (Peace and Justice Studies); LST 7304 (Social Sciences).

LST 8100 Independent Study and Research. In addition to the Directed Readings Seminar, students may opt to do an additional independent study on a topic area that is not addressed by existing courses available in the graduate curriculum.
MATHEMATICS and STATISTICS

Professors: Robert DeVos, Ph.D., Associate Dean, College of Arts & Sciences, Functional and Numerical Analysis; Timothy Feeman, Ph.D., Functional Analysis, Operator Theory; Alan Gluchoff, Ph.D., Complex Analysis, Functional Analysis; Frederick W. Hartmann, Ph.D., Complex Function Theory; Robert Jantzen, Ph.D., Mathematical Physics, Cosmology; Osvaldo Marrero, Ph.D., Combinatorics, Computing, Statistics; Paul Pasles, Ph.D., Number Theory; Joseph G. Pigeon, Ph.D., Applied Statistics, Design of Experiments; *David Sprows, Ph.D., Topology, Iterated Function Theory; Robert Styer, Ph.D., Number Theory; Andrew Woldar, Ph.D., Group Theory, Graph Theory, Algebraic Combinatorics


Assistant Professors: Charles Ashley, Ph.D., Applied Mathematics, Mathematical Physics; Paul Bernhardt, Ph.D., Statistics, Missing and Censored Data, Biostatistics; Alice Deanin, Ph.D., Number Theory, Algebra, Mathematics Education; Kathryn Haymaker, Ph.D., Coding Theory, Applied Discrete Math; Amanda Knecht, Ph.D., Algebraic Geometry; Beth Malmskog, Ph.D., Number Theory, Arithmetic Geometry; Yimin Zhang, Ph.D., Inferential Statistics, Multiple Comparisons

*Chairperson, Graduate Committee (Mathematics)
**Chairperson, Graduate Committee (Applied Statistics)

DEPARTMENTAL PROGRAMS
The Department of Mathematics and Statistics offers two graduate programs: Master of Arts in Mathematics, and Master of Science in Applied Statistics. Courses offered in these programs normally meet weekday evenings. Each program has a core of required courses. However, within each program there are several options available, and students are encouraged to take courses from other programs when these courses fit well with their overall goals. In each program a thesis may be offered in place of two courses. In addition to these graduate programs, there are several certificate programs available including: Certificate of Graduate Study in the Teaching of Secondary Mathematics, Post-Master's Certificate in Mathematics, and a Certificate in Applied Statistics.

MASTER OF ARTS IN MATHEMATICS
Mathematics plays an essential part in every area of modern technology. Recognizing this diverse and important role of mathematics, the Department of Mathematics and Statistics offers a very flexible Master of Arts in Mathematics program built on a core of basic courses and a wide range of specialized electives.
By the proper selection of electives, a degree candidate may train for work as a systems analyst for a management consulting firm, an operations research analyst, a member of a research group for a computer firm, a high school teacher, a 2-year college teacher, a candidate for a Ph.D. program in mathematics, an actuary for an insurance company or for a number of other careers involving mathematics. Sample degree programs indicating a possible selection of electives related to particular areas of mathematics can be obtained from the Department of Mathematics and Statistics.

**Admission requirements:** An applicant for the Master of Arts in Mathematics program must hold a bachelor’s degree and must have completed course work in undergraduate mathematics through calculus, differential equations, and introductory linear algebra. Furthermore, they are required to submit the results of their graduate record examinations general test unless a Masters Degree has previously been attained. Students with technical undergraduate training but no degree in mathematics are encouraged to apply. Advanced placement for qualified students can be arranged.

**Degree Requirements**
Each student is required to successfully complete the Graduate Math Seminar (MAT 9000), two courses in Analysis, and seven elective courses. Students are strongly encouraged to consult with several members of the faculty to formulate a program of study suitable to their individual needs. To facilitate the design of an appropriate course of study, the elective courses may be chosen from the following list or, with the approval of the Master of Arts in Mathematics Committee, from any of the other graduate programs of the University.

MAT 7290 Geometry  
MAT 7300 History of Mathematics  
MAT 7305 Technology in the Teaching of Mathematics  
MAT 7310 Topics in the Teaching of Mathematics  
MAT 7600 Advanced Calculus  
MAT 7605 Topics in Analysis  
MAT 7610 Complex Analysis  
MAT 7660 Linear Algebra  
MAT 7670 Mathematical Logic  
MAT 7750 Numerical Analysis I  
MAT 7755 Numerical Analysis II  
MAT 7770 Number Theory  
MAT 7780 Financial Mathematics  
MAT 7790 Dynamical Systems and Chaos  
MAT 8430 Operations Research  
MAT 8435 Mathematical Modeling  
MAT 8600 Real Analysis  
MAT 8650 Abstract Algebra  
MAT 8655 Topics in Abstract Algebra  
MAT 8700 Topology
CERTIFICATE OF GRADUATE STUDY IN THE TEACHING OF SECONDARY SCHOOL MATHEMATICS

This program is explicitly intended for individuals who are presently teaching at the secondary school level. This 15-credit program consists of five graduate courses that cover the following areas: geometry, history of mathematics, statistics, using technology in the classroom, and a special topics course. There will be at least one course in the certificate program offered during each of the Fall, Spring and Summer semesters. These graduate courses can be applied to the requirements for the 30 credit Master of Arts in Mathematics also offered at Villanova. Moreover, all secondary school teachers are eligible for a significant tuition discount at Villanova. Applicants to this program should be teachers of mathematics who have had college calculus and a course in linear algebra.

The Certificate of Graduate Study in the Teaching of Secondary School Mathematics will be awarded upon completion of the following five (5) courses with a minimum GPA of 3.0 (The 15 credits are required to be from Villanova’s Mathematics and Statistics Program):

7290 Geometry
7300 History of Mathematics
7404 Statistical Methods I
7305 Technology in the Teaching of Mathematics
7310 Topics in the Teaching of Mathematics

POST-MASTER'S CERTIFICATE IN MATHEMATICS

The Post-Masters Certificate in Mathematics is intended for individuals who have already earned a master's degree but wish to continue their graduate study. The program is open to all, but is especially well suited to the needs of middle-school and secondary-school teachers who already have a master's degree. The Post-Master's Certificate will be granted on the completion of five courses with a minimum GPA of 3.0. These courses are to be chosen from the regular graduate mathematics offerings based on each individual's interests and goals.

MASTER OF SCIENCE IN APPLIED STATISTICS

Admission Requirements

Applicants for admission to the program in Applied Statistics must hold a bachelor's degree and must have completed undergraduate work in mathematics through multivariable calculus (usually calculus III) and linear algebra. They must also submit the results from the Graduate Record Examination (GRE). Students with graduate degrees may have the GRE requirement waived with the approval of the Director of the Applied Statistics Graduate Program. Those with degrees in areas other than mathematics and statistics are encouraged to apply.
Graduate Certificate in Applied Statistics

This 15-credit graduate certificate is designed for students seeking to deepen their statistical knowledge and demonstrate their expertise in statistics beyond the undergraduate level. Students must complete five graduate level courses. Requirements include completion of Calculus through Multivariable Calculus and Linear Algebra. The GRE requirement is waived for the Certificate.

Degree Requirements

Students must successfully complete ten courses (30 credits), maintain at least a 3.00 Grade Point Average (GPA) and pass the comprehensive examination covering the material contained in the required courses. Candidates for the Master’s degree have six years to complete their degree after starting the program. Students are to consult with the Director of the Applied Statistics Graduate Program to formulate a program of study suitable to their individual needs.

Required Courses

MAT 7404 Statistical Methods I
MAT 7405 Statistical Methods II
MAT 8400 Statistical Theory I
MAT 8401 Statistical Theory II
MAT 8406 Regression Methods
MAT 8412 Linear Statistical Models

Students in the Master of Science in Applied Statistics (MSAS) program must have completed MAT 7404, MAT 7405 and MAT 8400 within their first 15 credits and Statistical Theory II within their first 21 credits. Typically the first 4 courses taken are MAT 7404 and MAT 8400 in the fall semester, and MAT 7405 and MAT 8401 in the spring semester. They are generally followed by MAT 8406 and MAT 8412 in the next academic year. Modifications to this schedule may be made by the Director of the Applied Statistics Graduate Program.

Elective Courses*

MAT 7500 Statistical Programming
MAT 8408 Multivariate Methods
MAT 8414 Categorical Data Analysis
MAT 8416 Design of Experiments
MAT 8424 Statistics Practicum
MAT 8430 Operations Research
MAT 8435 Mathematical Modeling
MAT 8440 Statistical Quality Control
MAT 8444 Time Series and Forecasting
MAT 8446 Survival Data Analysis
MAT 8448 Clinical Trials Design and Analysis
MAT 8452 Nonparametric Statistics
MAT 8454 Sampling Methods
MAT 8462 Stochastic Processes
MAT 8790 Selected Topics I
MAT 8795 Selected Topics II
MAT 8796 Selected Topics III
MAT 8800 Independent Study

*Certain courses listed in other graduate programs may serve as electives with the prior consent of the Director of the Applied Statistics Graduate Program.

Comprehensive Examination
To take the Applied Statistics Comprehensive Examination (ASCE), students must: (1) have a GPA of at least 3.00, (2) have completed at least 21 credits in the program, and (3) of the six required courses, have completed five and be currently enrolled in the sixth or have completed all six. The ASCE will consist of three individual one-hour parts, all of which must be passed. The first part will cover the material in MAT 7404 and MAT 7405; the second part will cover the material in MAT 8400 and MAT 8401; and the third part will cover the material in MAT 8406 and MAT 8412. Students must pass the ASCE within the six year period allotted for the degree, that time beginning when the first course in the program is taken. Students are permitted one re-examination for any parts they did not pass, whenever the ASCE is offered.

DESCRIPTION OF COURSES

MAT 7290 Geometry Topics selected from affine, finite, hyperbolic, spherical, elliptic, Euclidean or projective geometry. (3 cr)

MAT 7300 History of Mathematics The development of mathematics from ancient times to the birth of calculus in the seventeenth century. Independent work on a topic in the history of mathematics since 1700. (3 cr)

MAT 7305 Technology in Teaching of Math Applications of technology of topics selected from algebra, geometry, calculus, statistics and programming. Technologies used may include computer algebra systems, e.g., Maple, geometry software, e.g., Sketchpad, and statistics software, e.g., Fathom. (3 cr)

MAT 7310 Topics in the Teaching of Mathematics Particular topics of study determined on a year to year basis to suit the desire and preparation of students (3 cr)

MAT 7404 Statistical Methods I Data summarization and display, distributions: binomial, Poisson, normal, t, chi-square and F, estimation, hypothesis testing, linear regression, correlation, statistical software packages. (3 cr)

MAT 7405 Statistical Methods II ANOVA: multiple comparison procedures, contrasts, random and fixed effect models, transformations, experimental design, nested designs, randomized blocks, factorials, latin squares, analysis of covariance, multiple regression, correlation, statistical software packages. (3 cr) Pre-req: MAT 7404.

MAT 7500 Statistical Programming Use SAS and R for data manipulation, presentation, and summarization. Topics include inputting/importing/exporting data, data cleaning and manipulation, and numerical and graphical summaries/analyses. Students will be introduced to simulations, SAS macro programming, and R functions. (3 cr)
MAT 7600 Advanced Calculus Real numbers, sequences, series, limits, metric spaces, continuity, compact and connected spaces. (3 cr)

MAT 7605 Topics in Analysis Advanced topics selected from real analysis, complex analysis, or higher analysis. (3 cr) Pre-req: Determined by instructor

MAT 7610 Complex Analysis Complex numbers, analytic functions, Cauchy-Riemann equations, complex integration, Cauchy integral theorem and Cauchy integral formulae, power series, Taylor and Laurent series, singularities, residue theorem, harmonic functions. (3 cr)

MAT 7660 Linear Algebra Vector spaces, linear transformations, eigenvalues and eigenvectors, invariant subspaces, decomposition theorem, Jordan forms, bilinear forms, self-adjoint operators, functions of operators, differential systems. (3 cr)

MAT 7670 Mathematical Logic The sentential calculus, truth functions, analytic tableaux, natural deduction, first order logic, models, consistency, completeness. Applications to computer science including the P-NP problem. (3 cr)

MAT 7750 Numerical Analysis I Error generation and propagation, root finding, approximation of functions by polynomials and cubic splines, direct and iterative solutions of linear systems, operations count, numerical differentiation and integration. (3 cr)

MAT 7755 Numerical Analysis II Topics selected from: calculation of eigenvalues and eigenvectors, finite difference techniques, numerical methods for solving initial and boundary value problems, convergence, stability. (3 cr) Pre-req: MAT 7750.

MAT 7770 Number Theory Divisibility; Euclidean algorithm; prime numbers; Fundamental Theorem of Arithmetic; congruences; arithmetic functions; Diophantine equations. Additional topics, which may vary by semester, include cryptography, law of quadratic reciprocity, continued fractions. (3 cr)

MAT 7780 Financial Mathematics Basic tools of financial markets; annuities; options; asset price random walks; estimation of parameters; Black Scholes Model; implied volatility; portfolio-engineering; hedging; discrete models.

MAT 7790 Dynamical Systems and Chaos Topics selected from: iteration of real and complex functions, population models, qualitative theory of differential equations, fractals and dimension, topological and metric properties of systems, applications.

MAT 8400 Statistical Theory I Probability, random variables, univariate and multivariate distributions, mathematical expectation, Central Limit Theorem, Law of Large Numbers. (3 cr)

MAT 8401 Statistical Theory II Sampling, estimation, hypothesis testing, decision theory, least squares, regression, analysis of variance, Bayesian statistics. (3 cr) Pre-req: MAT 8400.

MAT 8406 Regression Methods Linear regression, correlation, multiple regression, weighted least squares, residuals and influence diagnostics, model building, variable selection, nonlinear regression. (3 cr) Pre-req: MAT 7405.

MAT 8408 Multivariate Methods Multivariate normal distribution, principal component analysis, Hotelling T2 test, discriminant function analysis, multivariate analysis of variance, covariance and repeated measurements, canonical correlation analysis, factor analysis, classification and cluster analysis. (3 cr) Pre-req: MAT 7405.
MAT 8412 Linear Statistical Models
Analysis of general linear models, fixed and random effects, variance components, unbalanced data. (3 cr) Pre-req: MAT 7405.

MAT 8414 Categorical Data Analysis
Estimation, maximum likelihood, weighted least squares, log-linear models, logistic regression. (3 cr) Pre-req: MAT 7405.

MAT 8416 Design of Experiments
Completely randomized, randomized block, latin square, nested, split plot, balanced incomplete block and crossover designs, factorials, systems of confounding, fractional factorials and response surface designs. (3 cr) Pre-req: MAT 7405.

MAT 8424 Statistics Practicum
Applications of regression analysis, analysis of variance, multivariate data analysis, presentation of results, statistical graphics, interpretation of results, issues relevant to the practice of statistical consulting. Analysis of a selected dataset, with written report and accompanying presentation required. (3 cr) Pre-reqs: Must have completed 24 credits in the Applied Statistics Program.

MAT 8430 Operations Research
Deterministic mathematical models, including linear programming, integer programming, inventory, transportation and assignment problems, networks and flows, nonlinear programming and dynamic programming with an emphasis on principles and techniques. (3 cr) Pre-req: multivariable calculus, linear algebra.

MAT 8435 Mathematical Modeling
Model construction, Markov chains, game theory, networks and flows, growth processes and models for epidemics and queues with an emphasis on model construction. (3 cr) Pre-req: multivariable calculus, differential equations, linear algebra.

MAT 8440 Statistical Quality Control
Industrial applications of statistical techniques, Deming’s 14 points, Ishikawa’s charting techniques, control charts for attributes and variables, acceptance sampling, military standards, process capability studies, introduction to Taguchi designs. (3 cr) Pre-req: MAT 7405.

MAT 8444 Time Series and Forecasting
Frequency domain approaches to the analysis of time series, autoregressive models, forecasting. (3 cr) Pre-req: MAT 7405.

MAT 8446 Survival Data Analysis
Analysis of survival or lifetime data; life tables and Kaplan-Meier estimation, survival analysis with covariates, Cox proportional hazard models. (3 cr) Pre-req: MAT 7405.

MAT 8448 Clinical Trials Design and Analysis
Basic principles of clinical trials, rationale, history, organization and planning, randomization and ethical issues, sample size determination, study designs: parallel, crossover, repeated measurements, statistical analysis of clinical trials data, interim analyses. (3 cr) Pre-req: MAT 7405.

MAT 8452 Nonparametric Statistics
One sample rank tests, estimates and confidence intervals, paired replicates, two sample rank tests, nonparametric correlation and regression techniques. (3 cr) Pre-req: MAT 7404.

MAT 8454 Sampling Methods
Sampling and survey methodology, basic sampling theory, random and stratified sampling, systematic sampling errors, estimation procedures. (3 cr) Pre-req: MAT 7405.

MAT 8462 Stochastic Processes
MAT 8600 Real Analysis General theory of measure and integration, Lebesgue measure, Lebesgue integral. (3 cr) Pre-req: Determined by instructor.

MAT 8650 Abstract Algebra Groups, homomorphisms, factor groups, rings, fields, finite fields, selected applications. (3 cr)

MAT 8655 Topics in Abstract Algebra Possible topics include Boolean algebras, graph theory, coding theory, Galois theory. (3 cr) Pre-req: MAT 8650.

MAT 8700 Topology Topological equivalence, connectedness, compactness, manifolds, homotopy. (3 cr)

MAT 8705 Topics in Topology Selected topics from point set and geometric topology. (3 cr) Pre-req: MAT 8700.

MAT 8740 Applied Mathematics I Symmetric linear systems, eigenvalue and dynamical systems, Lagrange multipliers, equilibrium and minimum principles, least squares estimation and Kalman filter, equilibrium of fluids and solids, calculus of variations. (3 cr)

MAT 8745 Applied Mathematics II A continuation of MAT 8740. (3 cr)

MAT 8790 Selected Topics I Particular topics of study determined on a year to year basis to suit the desire and preparation of students. (3 cr)

MAT 8795 Selected Topics II Same as MAT 8790. (3 cr)

MAT 8800 Independent Study Reading in a selected branch of mathematics under the direction of a member of the faculty. May be repeated for credit. (3 cr)

MAT 9000 Graduate Math Seminar Supervised study of selected topics in mathematics with presentations by individual students. Content may be chosen by the instructor or may be tailored to interests of students. (3 cr)

MAT 9011 Thesis Direction I (1 cr)

MAT 9021 Thesis Direction II (2 cr)

MAT 9031 Thesis Direction III (3 cr)

MAT 9061 Thesis Direction IV (6 cr)
Graduate Studies

NURSING

The College of Nursing conducts several graduate programs. For information visit http://www.villanova.edu/nursing/programs/graduate/

PHILOSOPHY

Professors: Walter A. Brogan, Ph.D., Greek Philosophy, Continental Philosophy; Thomas W. Busch, Ph.D., Sartre, Merleau-Ponty, Ricoeur, Body and Politics; John M. Carvalho, Ph.D., Critical and Cultural Theory, Ancient Greek Philosophy, Aesthetics; William Desmond, Ph.D., David R. Cook - Visiting Endowed Chair, Ethics, Philosophy of Religion, Metaphysics, Hegel, Aesthetics; John A. Doody, Ph.D., Robert M. Birmingham Endowed Chair in Humanities, Social and Political Philosophy, Critical Theory; *John Immerwahr, Ph.D., Modern Philosophy, Public Policy; Helen Lang, Ph.D., Ancient and Medieval Philosophy, History of Ancient and Medieval Physics; Sally J. Scholz, Ph.D., Feminist Theory, Social and Political Philosophy; James Wetzel, Ph.D., Augustinian Chair in the Thought of St. Augustine.

Associate Professors: Sarah-Vaughan Brakman, Ph.D., Ethics, Healthcare Ethics; Edwin L. Goff, Ph.D., Moral Philosophy, Kant; Julie R. Klein, Ph.D., Medieval Philosophy, Early Modern Philosophy, Continental Philosophy; Chaone Mallory, Ph.D., Environmental Philosophy, Environmental Ethics, Ecofeminism, Feminist Theory; James J. McCartney, O.S.A., Ph.D., Ethics, Healthcare Ethics, Philosophy of Medicine; Gabriel Rockhill, Ph.D., Contemporary Continental Philosophy, Political Philosophy, Aesthetics, Philosophy of Art, Philosophy of History; **Annika Thiem, Ph.D., Th.D., Ethics and Political Thought, Political Theory, Feminist Theory, Political Theology; Barbara E. Wall, Ph.D., Political Philosophy, Marxism, Feminist Theory

Assistant Professors:
Stephen Napier, Ph.D., Epistemology, Bioethics, and Philosophy of Religion; Dalia Nassar, Ph.D., Kant, German Idealism, Romanticism, Aesthetics, Hermeneutics; Georg Theiner, Ph.D., Philosophy of Mind, Philosophy of Cognitive Science, Metaphysics, Phenomenology, Philosophy of Language and Linguistics;

Emeritus Professors:
Joseph Betz, Ph.D., Donald Burt, Ph.D., John D. Caputo, Ph.D., John H. Fielder, III, Ph.D., Benedict Paparella, Ph.D., Lawrence Stepelevich, Ph.D.

* Department Chair
** Director of Graduate Studies in Philosophy

PROGRAMS OF STUDY
The department offers programs of study leading to the degrees of Doctor of Philosophy and Master of Arts. Departmental programs emphasize continental philosophy and the history of philosophy including thinkers in the Christian tradition.

The Department of Philosophy also offers a Ph.D. in philosophy with a specialization in the interdisciplinary study of philosophy and theology.
THE DOCTOR OF PHILOSOPHY PROGRAM

Course Requirements. Students are required to complete 48 credits of course work. Advance credit for transfer students will be determined on an individual basis. Students who follow the interdisciplinary philosophy and theology track are required to complete a total of 54 credits of course work, of which 42 credits will be in philosophy and 12 credits in theology.

Language Requirements. Students must pass language examinations in both French and German; either Greek or Latin may be substituted for one of the two modern language requirements.

Examinations. Students must take and successfully complete two sets of “comprehensive” examinations before they are allowed to begin work on the dissertation. The first set is called The MA Qualifying Portfolio and Oral Exam. Details are available at the following web page: http://www1.villanova.edu/villanova/artsci/philosophy/doctorate/complexam.html. The second set is the preliminary exam (preliminary to beginning work on the dissertation) which is taken after all course work and language exams are completed. This exam tests comprehensive knowledge of a figure or theme in philosophy directly related to the topic the student has chosen for his or her dissertation.

Master of Arts. The M.A. is awarded to students in the PhD program who have completed 30 credits of course work, passed one language exam, and the MA Qualifying Portfolio and Oral Exam. No independent MA is offered.

Dissertation. After successfully passing the preliminary examinations, students are qualified to begin writing the dissertation. This process begins with a written proposal defended in an open session of the Philosophy Department and ends with an oral defense of the completed dissertation in a public forum.

Maximum time in program: Students must complete their degree within an 8 year time period. Up to an additional 2 years will be permitted by request. This extension is at the discretion of the Graduate Director in consultation with the Dissertation committee and the Graduate Faculty.

Full details on course requirements, comprehensive examinations, language and preliminary examinations, and the dissertation are available from the Director of Graduate Studies.

ADMISSION REQUIREMENTS AND FINANCIAL AID

Students must have completed a minimum of eighteen undergraduate credit hours in philosophy or related disciplines. Applicants should supply transcripts from every institution they have attended, letters of recommendation, a writing sample, a personal statement of purpose, and the results of their Graduate Record Examination. All applications must be complete by February 1st.
Each year a certain number of graduate assistantships will be made available to students in the doctoral program; students receiving these awards will become part of a supervised teacher training program. An additional assistantship is dedicated to students enrolled in the interdisciplinary line. These students also participate in the teacher training program.

GREATER PHILADELPHIA PHILOSOPHY CONSORTIUM
The Villanova University Philosophy Department is a member of the Greater Philadelphia Philosophy Consortium, a co-operative arrangement which includes the graduate philosophy programs at the University of Pennsylvania and Temple University. The graduate programs in the Consortium co-operate and share facilities in a number of different ways. Villanova students are invited to take or audit graduate philosophy courses offered by the schools in the Consortium. Consult the Director of Graduate Studies for further details.

DEPARTMENTAL COURSES

PHI 7000 The Pre-Socratics An investigation of the origins and development of Western philosophy before Socrates. (3 cr)

PHI 7110 The Philosophy of Socrates A study of the priority of definition, unity of virtue, irony, philosopher’s relation to the polis, friendship, character formation and the elenctic method which identifies Socrates in Plato’s early dialogues, including Alcibiades, Apology, Charmides, Crito, Euthydemus, Euthyphro, Gorgias, Hippias Major, Hippias Minor, Ion, Laches, Lysis, Meno, Protagoras, and Republic I. (3 cr)

PHI 7120 Plato: Middle Dialogues Reading and discussion of the Republic, Symposium, and Timaeus. (3 cr)

PHI 7130 Plato: Later Dialogues Reading and discussion of the Theatetus, Parmenides, and Sophist. (3 cr)

PHI 7220 Aristotle: Theoretical Philosophy An examination of Aristotle’s theoretical philosophy based on selections from the Metaphysics, Physics, De Anima, and the “Organon.” (3 cr)

PHI 7230 Aristotle: Practical Philosophy An examination of Aristotle’s practical philosophy based on selections from the Nicomachean Ethics, Politics, Rhetoric, and Poetics. (3 cr)

PHI 7300 Roman Philosophy The focus of this seminar is on the Romanization of Greek philosophy. The scope is late republic to waning empire, and the figures covered generally include (but are not limited to) Plotinus and Augustine. Of special concern is the nature and fate of autarkic virtue—the dominant ideal of philosophical self-sufficiency—under Stoic, skeptical, Platonic, and Epicurean regimes.

PHI 7320 Plotinus A historical and critical inquiry into the philosophic synthesis of Plotinus with particular reference to the contributions of Middle Platonists. A detailed study of the Enneads and their influence upon early Christian speculation. (3 cr)

PHI 7330 Medieval Philosophy A study of selected texts from Christian, Jewish, and Islamic thinkers. This course will also include reference to the origins medieval philosophy in ancient philosophy and/or the anticipation of modern philosophical concerns. (3 cr)
PHI 7340 Topics in the History of Philosophy A number of important topics, e.g., space and time or the eternity of the world, are best considered both in immediate historical settings and across traditional historical divisions. Such topics will be considered as they are defined and redefined in ancient, medieval, and modern terms. (3 cr)

PHI 7350 The Problem of God The search for God; varying views on the nature of God; the phenomenon of atheism. (3 cr)

PHI 7410 Augustine’s Speculative Philosophy Augustine’s epistemology, anthropology, and metaphysics. Topics include the possibility and process of knowledge, freedom, the problem of evil, the existence and nature of God. (3 cr)

PHI 7420 Augustine’s Practical Philosophy Augustine’s ethics, social and political philosophy, and philosophy of history. Topics include Happiness, Good and Evil, the Family, the State, origins and destiny of the human being. (3 cr)

PHI 7510 Aquinas: Metaphysics The nature of metaphysics; the potency-act relationship; essence-existence; matter-form; substance-accidents; efficient, final, and exemplary causality; the existence and nature of God; the transcendentals. (3 cr)

PHI 7530 Aquinas: Philosophy of Human Nature The hylomorphic theory; the soul as substantial form; the soul-body relationship; the cognitive and appetitive powers of the human soul; abstraction; the immateriality and immortality of the human mind; free will. (3 cr)

PHI 7610 Topics in Early Modern Philosophy Selected texts and themes from the early modern period. The readings will be taken from major philosophical figures of the period such as: Descartes, Locke, Malebranche, Leibniz, Spinoza, Berkeley, Hume, Reid. (3 cr)

PHI 7620 The Rationalists An examination of the philosophers of the rationalist tradition; selected texts from Descartes, Spinoza, and Leibniz. (3 cr)

PHI 7630 The Empiricists An examination of the philosophers of the empiricist tradition with concentration on their theories of knowledge and metaphysics; selected texts from Locke, Berkeley, and Hume. (3 cr)

PHI 7640 Spinoza “A study of such major works as the Ethics or Theologico-Political Treatise in their historical context and with respect to contemporary problems.”

PHI 7710 Kant’s First Critique Textual and philosophical analysis of the Critique of Pure Reason; the historical framework of the Critique. (3 cr)

PHI 7720 Kant’s Practical Philosophy The principal themes of Kant’s practical philosophy. Selected readings from the Critique of Practical Reason, the Groundwork of the Metaphysics of Morals, the Critique of Judgement, The Metaphysical Elements of Justice, and other writings. (3 cr)

PHI 7730 Kant’s Third Critique A close reading of the third critique along with some of the contemporary responses to it by Lyotard, Gadamer, Derrida, Arendt, Deleuze. (3 cr)

HI 7810 From Romanticism to Idealism Readings from Kant, Hegel, Reinhardt, Schelling, Fichte, Schlegel, Schiller, and Hölderlin. (3 cr)

PHI 7910 Hegel’s Phenomenology of Spirit A detailed reading of Hegel’s 1806 Phenomenology of Spirit with particular emphasis upon its anticipation of Hegel’s later works. (3 cr)
PHI 7920 Hegel's Logic A detailed reading of both Hegel’s 1812 Science of Logic and the 1830 Encyclopedia of the Philosophical Sciences. A study of Hegel’s dialectical treatment of the logical categories, initiating with the famous triad “Being-Nothingness-Becoming.” (3 cr)

PHI 7930 Hegel's Philosophy of Right A study of Hegel’s social and political philosophy with particular emphasis on its influence upon contemporary thought. (3 cr)

PHI 8010 Kierkegaard The attack on Hegel; the aesthetic, the ethical, and the religious stages; truth and subjectivity; the significance of the pseudonyms; the attack on Christendom; Kierkegaard’s relationship to existentialism and phenomenology. (3 cr)

PHI 8020 Marx The early philosophical writings of Marx; the influence of Hegel and Feuerbach; the problem of humanism. (3 cr)

PHI 8070 Nietzsche Nietzsche’s relationship to Schopenhauer; the Apollonian and the Dionysian; the critique of morals; the death of God; the “Âbermenschen”; eternal recurrence; the will to power; Nietzsche’s relationship to existentialism and phenomenology. (3 cr)

PHI 8090 American Philosophy A survey of the thought of the philosophers of America’s classical period, roughly 1875 to 1935, such as Peirce, James, Royce, Mead, Santayana, and Dewy. They are closely connected to the movements named idealism, naturalism, and pragmatism. (3 cr)

PHI 8110 Contemporary Analytical Philosophy The development of analytic philosophy from its beginnings in Moore and Russell up to the present; topics such as: logic and language, the mind-body problem, and ontology. (3 cr)

PHI 8120 Wittgenstein The development of Wittgenstein’s thought from the period of the Tractatus to that of the Philosophical Investigations. (3 cr)

PHI 8150 Symbolic Logic Truth functions and tautologies; propositional and class calculus; theory of quantification; relations. (3 cr)

PHI 8210 Husserl The problem of psychologism, the ideal of a strict science; transcendental phenomenology; phenomenology and idealism; the phenomenology of the life-world; Husserl’s phenomenology and existential phenomenology. (3 cr)

PHI 8220 Heidegger's Being and Time A reading of Heidegger’s early masterpiece, taking up such issues as the question of being, the idea of fundamental ontology, the analytic of Dasein, existence, being-in-the-world, care, resoluteness, temporality and historicity; the pre-Being and Time period; the “turning” after Being and Time. (3 cr)

PHI 8225 Heidegger's Later Writings A study of the “thought of being” in Heidegger’s work after Being and Time, taking up such issues as the question of humanism, releasement, truth, language, poetry, the principle of reason, the essence of technology, the Fourfold, the history of being, overcoming metaphysics, the end of philosophy, the Event of Appropriation. (3 cr)

PHI 8230 Sartre The development of Sartre’s philosophy from the phenomenological beginnings, to dialectic, and beyond. (3 cr)

PHI 8240 Camus and Marcel The confrontation between atheistic and theistic humanism in the major works of Camus and Marcel. (3 cr)
PHI 8250 Merleau-Ponty Interpretation of phenomenology; science and the lifeworld; perception; body and language; art and being. (3 cr)

PHI 8260 Gadamer A study of Gadamer’s major writings focussing on Truth and Method and treating such issues as the hermeneutic circle, objectivism and relativism, the tradition, the classic, understanding, dialogue, play, the work of art, history, language; Gadamer’s interpretation of Plato, Aristotle, and Hegel; the exchanges with Habermas and Derrida. (3 cr)

PHI 8270 Ricoeur The development of Ricoeur’s thought from phenomenology to hermeneutics. Emphasis will be on the methodology, his dialogue with contemporary thinkers, and his unique contributions, such as his work on metaphor and narrative. (3 cr)

PHI 8280 Arendt The major themes of Arendt’s philosophy including labor, work, and action; the private, the social, the public; totalitarianism, revolution, and civil disobedience; Eichmann and evil; freedom and authority; thinking, willing, and judging. (3 cr)

PHI 8290 Habermas A close examination of the principal works of the major philosophical theorist of society in late industrial capitalism. Included in this study are the critical differences between Habermas and French post-structuralist theory. (3 cr)

PHI 8310 Levinas A study of Levinas’ principal works, Totality and Infinity and Otherwise than Being or Beyond Essence, emphasizing such issues as ethics as first philosophy, the question of the other, sensibility, substitution, and responsibility; the influence of Levinas on Derrida and Lyotard and the question of postmodernism and ethics; Levinas’ critique of Heidegger. (3 cr)

PHI 8340 Derrida A study of Derrida’s principal writings, from the early work on Husserl to the present, treating such issues as: the idea of deconstruction, difference, trace, arch-writing, textuality, the signature, literature, the gift, the quasi-transcendental, the ethical and political implications of deconstruction; relationship to Heidegger. (3 cr)

PHI 8350 Foucault A close study from Foucault’s principal texts and interviews of some combination of the following themes: archaeology, genealogy, taxonomy, transgression, voices from the outside, the author, the death of man, power, discipline, cartography, panopticism, the archive, the event series, the limit experience, the aesthetics of existence. (3 cr)

PHI 8420 Healthcare Ethics A comparison and contrast of various theoretical approaches to healthcare ethics. Issues include healthcare rationing, human beginnings, death with dignity, refusing medical interventions, and professional-patient/client interactions. (3 cr)

PHI 8430 Concepts of Health and Disease Consideration of the various and often competing epistemological/aesthetic approaches that ground the nonmoral judgements about what is healthy or diseased, what is normal or abnormal, what is beautiful or disfigured, and what is a good quality of life. (3 cr)

PHI 8440 Metaethics Foundationalist and anti-foundationalist versions of moral enquiry will be contrasted and compared, and other problems of metaethics will be discussed. (3 cr)

PHI 8510 Political Philosophy A survey of major political theories from works such as Plato’s Republic, Machiavelli’s The Prince, Hobbes’ Leviathan, Rousseau’s Discourses, Hegel’s Philosophy of Right, and Rawls’ Theory of Justice with some consideration of such contemporary post-Hegelian thinkers as Kojáve and Fukayama who maintain that political philosophy has come to an end. (3 cr)
PHI 8520 Liberalism and its Critics A study of the historical development of liberalism from Hobbes to contemporary liberal theory with careful attention to the critique of liberalism mounted by contemporary communitarian theory, especially the theories of Alistair MacIntyre, Charles Taylor, and William Gladstone. (3 cr)

PHI 8530 Critical Theory in the Frankfurt School A study of the historical development of critical theory in the Frankfurt School, from its inception in Kantian philosophy to its present formation in the work of Jürgen Habermas. (3 cr)

PHI 8540 Feminist Theories A study of the philosophical foundations of a philosophy of women with an emphasis on the metaphysical, ethical, and epistemological questions raised by feminist criticism. (3 cr)

PHI 8550 Body Politics Readings and discussions studying the centrality of the body for theories about and practices of politics. Themes such as the lived body, structured body, fluid body, disciplined body, desiring body, gendered body, marked body will be treated in the works of writers such as Sartre, Merleau-Ponty, Irigaray, Foucault, Deleuze, Lingis, Butler. (3 cr)

PHI 8560 Philosophy of Language Theories of reference, meaning, semiotics and symbolism and their historical implications in the twentieth century. Authors may include: Saussure, Frege, Russell, Wittgenstein, Heidegger, Derrida, Lacan, Davidson. (3 cr)

PHI 8610 Topics in Postmodernism Readings selected from recent postmodern writers such as Derrida, Foucault, Lyotard, Deleuze, and others. (3 cr)

PHI 8620 Modernity and Postmodernity Readings from Habermas, Lyotard, Derrida, Heidegger, Gadamer, Nietzsche, and Weber. (3 cr)

PHI 8630 Philosophy of the Image A study of the aesthetics of painting, photography and film in light of the commentaries by Heidegger, Derrida, Barthes, Goodman, Merleau-Ponty, Foucault, Deleuze and Rosalind Krauss. (3 cr)

PHI 8640 Philosophy of Contemporary Music A critical revaluation of Hanslick’s On the Musically Beautiful with an ear for the comments in selected writings by Nietzsche, Atali, Cage, Adorno, Barthes, Goodman, and Kivy as well as for the music made by selected contemporary composers. (3 cr)

PHI 8660 Literature and Philosophy Readings from Plato, Aristotle, Nietzsche, Kafka, Heidegger, Blanchot, Benjamin, Holderlin, and Celan. (3 cr)

PHI 8670 Philosophy and Tragedy A close reading of selected texts by Plato, Aristotle, Holderlin, Hegel, Nietzsche, Heidegger, Derrida, and Benjamin dealing with the interpretation of tragedy. Special attention is given to Antigone. (3 cr)

PHI 8710 Seminar in Philosophical Topics A specialized study of one or more important philosophical themes. (3 cr)

PHI 8720 Seminar in Philosophical Figures A specialized study of one or more important philosophers. (3 cr)

PHI 8830, 8835 Independent Study I, II Independent research on a topic chosen by the student and approved by the professor and the graduate director. (3 cr)

PHI 8840, 8845 Visiting Professor Seminar I, II A course taught by a visiting professor on a subject in that professor’s area of expertise. (3 cr each)
PHI 8870, 8875 Consortium I, II Graduate courses offered at the University of Pennsylvania and Temple University and taken by students participating in the Greater Philadelphia Philosophy Consortium. (3 cr each)

PHI 8890 Reading Philosophy in Greek A review of basic grammar in the context of the translation of passages of Greek philosophy. This course is designed for students who are interested in developing an adequate level of competency. However, the course would be of interest to beginners who would initially learn from listening to the translations of more advanced students. It would also be beneficial for advanced students who wish to have the opportunity to keep up their skills. (1 cr)

PHI 8920, 8930 Teaching Practicum I, II Supervised experience in teaching philosophy. Students will work with a faculty member in the teaching of an introductory philosophy course. Students will assist in working with individual undergraduates, classroom teaching, and designing and grading examinations. A formal evaluation of the student’s teaching ability will be prepared by the supervising faculty member. (1 cr each) Permission of the instructor is required.

PHI 9010 – 001 Dissertation (0 cr)

PHI 9081 – 001 Dissertation Continuation (0 cr)

Prerequisites: PHI 9000 or PHI 9010 or PHI 9020
Graduate Studies

POLITICAL SCIENCE


Associate Professors: Marcus L. Kreuzer, Ph.D., Western Europe, Party Politics, Globalization, Methodology; A. Maria Toyoda, Ph.D., East Asia, International Political Economy, Development; Thomas Smith, Ph.D., Ancient Political Theory, Liberal Political Theory; Catherine Warrick, Ph.D., Middle East, South Asia, Gender and Islamic Politics.


DEPARTMENTAL REQUIREMENTS

Students applying for graduate study in political science should submit, along with their application, two official undergraduate transcripts, scores from the Graduate Record Examination (GRE) General Test, three letters of recommendation, and a two page statement explaining their reasons for seeking admission. Applicants should have completed at least 18 undergraduate credits in political science or other equivalent social science/history courses. The department also will consider students who do not meet these course requirements if they can demonstrate otherwise experience and knowledge in politics. They are encourage to indicate any such practical political experience in their personal statement. Students also should have an overall GPA or 3.0 or higher. Application deadlines are August 1 for the Fall Term, May 1 for the Summer Term and December 1 for the Spring Term. Financial aid is available through a limited number of Graduate Assistantships and Tuition Scholarships awarded annually for Fall Term: application materials must be received by February 1 for consideration to receive an assistantship or scholarship.

A student pursuing the M.A. in Political Science must complete PSC 7000 (Research Concepts and Approaches) and one course from each of three concentrations: Political Philosophy, American Government, International Relations and Comparative Government. Students will take their remaining six courses from any of the three concentrations. Students can take up to six credits in other departments for courses related to their course of study.

A total of thirty credits is required for the degree. Students may (1) complete ten courses and take a comprehensive oral exam after all course work is completed, or (2) complete eight courses and write a thesis.
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The oral exam tests the student’s knowledge of course specifics and general themes in political science. Prior to the exam, the student submits to the graduate director a portfolio containing an abstract of each paper written while in the program, a list of courses taken, and at least five discussion questions which may be used during the exam at the discretion of the evaluation committee.

You may earn a certificate in either “Politics and American Government”, or “International Relations and Comparative Government” by satisfactorily completing five graduate courses in one of those two areas. Students applying for the certificate in political science should submit, along with their application two official undergraduate transcripts, three letters of recommendation, a two-page statement explaining their reasons for applying, and either scores from the Graduate Record Examination General Test or evidence of previous graduate level coursework. A student may be accepted into the certificate program on non-matriculated status without the GRE or previous graduate level coursework, but then the student must earn no less than a B in each of the first two courses before continuing with the program.

DEPARTMENTAL PROGRAM
Contingent Courses
PSC 8000 Special Topics in Political Science.
The following courses are regularly scheduled as Special Topics:
  US Intelligence
  Democratization
  International Law
  Comparative Civil Liberties
  International Security
  Genocide & Mass Killings

PSC 9078 Thesis Development Seminar
PSC 9079 Thesis Continuation
PSC 9800 Readings and Research in Political Science

American Government
PSC 8100 The Legislative Branch
PSC 8150 The Presidency
PSC 8200 The Judicial Branch
PSC 8209 Public Policy
PSC 8240 National Security Policy
PSC 8250 Urban Politics and Government
PSC 8300 American Party Politics
PSC 8350 Political Communications
PSC 8375 Cyberpolitics
PSC 8600 Contemporary Constitutional Problems

International Relations and Comparative Government
PSC 8700 Globalization
PSC 8775 Global Inequality
Graduate Studies

PSC 8825 Middle Eastern Politics
PSC 8875 Latin American Comparative Politics
PSC 8901 Russian Politics
PSC 8950 African Politics
PSC 9025 International Political Economy
PSC 9050 International Organization
PSC 9075 European Politics
PSC 9150 American Foreign Policy
PSC 9200 Middle Eastern International Relations
PSC 9231 Development and Aid
PSC 9300 Third World Politics
PSC 9325: Comparative Elections and Parties

Theory and Methodology
PSC 7000 Research Concepts and Approaches (required of all PSC Graduate)
PSC 9375 American Political Theory I: The American Founding
PSC 9450 Title: American Political Theory II: The Lincoln/Douglas Debates

**PSC 7000 Research Concepts and Approaches** Tools needed to think critically about questions of political science; various research methods employed by political scientists; skills necessary to write cogent essays and conduct original research. (3 cr)

**PSC 8000 Special Topics in Political Science** Selected topics of special interest in political science. (3 cr)

**PSC 8100 The Legislative Branch** Strong points and shortcomings of the Congress of the United States, and prospects of Congressional reform. (3 cr)

**PSC 8150 The Presidency** Nature, functions, and evolution of the American Presidency; competing definitions and interpretations of the power of the office; special attention to recent presidents. (3 cr)

**PSC 8200 The Judicial Branch** The Federal Court System of the United States, focusing on the Supreme Court and its role in U.S. Constitutional development. (3 cr)

**PSC 8209 Public Policy** Models of the policy making process; also special topics such as privatization, public enterprises, deregulation, and benefit-cost analysis. (3 cr)

**PSC 8240 National Security** Policy How and why the United States defended itself with chosen conventional, covert, and nuclear strategies during the Cold War and post-Cold War eras. (This course may satisfy either concentration.) (3 cr)

**PSC 8250 Urban Politics and Government** City and suburb relations, governmental reform, race and ethnic politics, and economic change. (3 cr)

**PSC 8300 American Party Politics** Organization and function of the American political party as contestant for political power, as broker for interest groups, and as architect of public policy; the national convention and the role of the party in the professional campaign. (3 cr)

**PSC 8350 Political Communications** Role, behavior, and influence of communications in American politics. (3 cr)

**PSC 8375 Cyberpolitics** The Internet as a political tool. How the Internet functions as a political medium by enabling individuals to build virtual and real-world communities, shape media narratives, and bring about political outcomes. (3 cr)
PSC 8600 Contemporary Constitutional Problems Selected group of problems in the area of constitutional development; selection determined by the contemporary importance of the problem to be analyzed. (3 cr)

PSC 8700 Globalization Explores link between globalization and anti-Americanism, new security threats, income inequality, rise in NGOs, immigration, retrenchment in welfare policies. (3 cr)

PSC 8775 Global Inequality Theories and trends, regional variation, importance of economic growth, democracy, culture, state role, political mobilization, and structural constraints in explaining inequality across countries; multi-disciplinary; comparative and aggregate quantitative analysis; in-depth selected country studies. (3 cr)

PSC 8825 Middle Eastern Politics Ways in which political patterns and crosscutting influences affect the fundamental concepts of political identity in the Arab world, Israel and Iran. The interaction of secular nationalism and political Islam, ideas of political thinkers and political movements. (3 cr)

PSC 8875 Latin American Politics Politically important groups, movements, institutions, and ideologies in Latin American nations. Competing theories about the political roles of the military, church, bureaucracy, parties, union, economic elites, and branches of government. (3 cr)

PSC 8901 Russian Politics Russian political system in transition from authoritarian rule; the historical and ideological roots of the Soviet system; initial efforts to reform it; the collapse of the communist system in Russia and the emergence of a new one. (3 cr)

PSC 8950 African Politics Patterns of political change in Africa south of the Sahara with reference to problems of political and economic development, national integration, interregional cooperation, linkages between internal and external affairs. (3 cr)

PSC 9000 Theories of International Relations Development of major theoretical approaches to international relations. (3 cr)

PSC 9025 International Political Economy Mercantilism, classical liberalism, imperialism, world systems theory, international trade and finance, multinational corporations, foreign aid, development, and integration. (3 cr)

PSC 9050 International Organization Institutions, processes, and politics of the United Nations and regional international organizations. (3 cr)

PSC 9061 Thesis Direction (6 cr)

PSC 9075 European Politics Looks at variation within Europe and between Europe and US in the functioning of formal political institutions, modification of market outcomes by social policy, and role supra-national politics (i.e. EU, globalization, immigration) play in transforming domestic politics. (3 cr)

PSC 9078 Thesis Development Seminar Helps students develop a interesting, theoretically grounded, methodologically informed thesis proposal. Required for all opting for thesis research track. (3 cr)

PSC 9150 Recent American Foreign Policy Cultural and governmental forces influencing Presidential decisions, Congressional activity and contemporary issues in the Post-Cold War period; theory and methodology of bureaucratic policy formation. (3 cr)

PSC 9231 Development and Aid Analyzes economic development patterns of emerging economies and role played by foreign aid. (3 cr)
**PSC 9325 Selected Political Theories** Early and modern political theories; their development and application as controlling factors in the growth of western civilization and American democracy; critical analysis and evaluation stressed. (3 cr)

**PSC 9375 The American Founding** Issues about the nature of the federal union, sovereignty, majority faction, the extended republic, representation, the branches of government, separation of powers, checks and balances, slavery, popular government and civic responsibility during the Philadelphia Convention of 1787 and the Ratification Debates over the Constitution.

**PSC 9450 American Political Theory II: The Lincoln/Douglas Debates** Examination of the theoretical and practical political concerns of political leadership in a free society, with emphasis on the political understanding and statesmanship of Abraham Lincoln and Stephen Douglas. Attention to the issues of equality, sovereignty, liberty, and justice. (3 cr)

**PSC 9800 Readings and Research in Political Science** An individual student with a specific interest that cannot be satisfied by a regular course is allowed to work on a tutorial basis with a particular professor. (3 cr)
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PSYCHOLOGY

Professors: Pamela Blewitt, Ph.D., Language and Cognitive Development; **Michael F. Brown, Ph.D., Comparative Cognition, Animal Learning; David F. Bush, Ph.D., Organizational Change, Gender Differences, Talent Management; Charles L. Folk, Ph.D., Attention and Perception, Cognitive Aging, Human Factors; Deborah A. Kendzierski, Ph.D., Social Psychology, Self-Definition, Health/Exercise Behavior; John E. Kurtz, Ph.D., Psychological Assessment, Personality Development and Clinical Neuropsychology; Thomas C. Toppino, Ph.D., Chairperson, Learning, Memory, and Cognition; Visual Perception; Cognitive Development

Associate Professors: *Rebecca J. Brand, Ph.D., Infant Cognitive and Social-Cognitive Development; Diego Fernandez-Duque, Ph.D., Social Neuroscience; Irene P. Kan, Ph.D., Cognitive Neuropsychology, Cognitive Neuroscience, Human Memory; Patrick M. Markey, Ph.D., Statistics, Personality and Social Psychology; *Matthew S. Matell, Ph.D., Time Perception, Behavioral Neuroscience

Assistant Professors: *Janette Herbers, Ph.D., Social Development; Steven S. Krauss, Ph.D., Cross-Cultural Psychology, Moral Psychology, Psychopathology; *Erica Slotter, Ph.D., Social Psychology, Self and Identity, Close Relationships

*Member Graduate Committee
**Chairperson Graduate Committee

DEPAR TM EN TAL R EQ UI R EM ENTS

The Department of Psychology offers a program leading to the degree of Master of Science. The core curriculum is designed to provide a solid theoretical-research foundation in psychology, while the electives allow the student to pursue and develop his or her individual interests within the field. The program of study is individually tailored to meet each student’s needs and goals such that students, depending on their particular interests, are prepared to pursue any one of the major areas of specialization that comprise contemporary psychology.

Students admitted for graduate study are expected to have completed a minimum of 18 credit hours in psychology at the undergraduate level. Among these must be at least one course in statistics and a laboratory course in psychology. Results of the Graduate Record Examination are required. The Advanced (Psychology) GRE Test is optional.

Requirements for the Master of Science degree in Psychology include the following: PSY 8000, PSY 8100, PSY 8050, PSY 8150; four additional elective courses (one of which may be from a related discipline, depending upon the approval of the chairperson of that discipline and the chairperson of the Department of Psychology), and thesis (PSY 9032, PSY 9033). Students also are strongly encouraged to participate in departmental colloquia (non-credit) and in the research laboratories of faculty members.
DEPARTMENTAL PROGRAM

Required Courses
PSY 8000 Seminar in Research: Concepts, Issues, and Methods
PSY 8100 Statistics and Experimental Design
PSY 8050 Biopsychology
PSY 8150 Cognitive Psychology
PSY 9032 Thesis I
PSY 9033 Thesis II

Program Electives
PSY 8175 Animal Learning and Cognition
PSY 8200 Perception
PSY 8225 Psychopathology
PSY 8250 Cognitive Behavioral Therapy
PSY 8275 Approaches to Psychotherapy
PSY 8300 Developmental Psychology
PSY 8325 Psychological Testing
PSY 8350 History and Systems
PSY 8400 Personality: Empirical Research
PSY 8450 Psychological Measurement
PSY 8500 Psychopharmacology
PSY 8550 Social Psychology
PSY 8900 Special Topics
PSY 9031 Individual Research

Graduate Psychology Courses offered for graduate students in other departments or programs (M.S. Psychology students may take these courses only with special permission and are not permitted to take more than one of these courses as electives).

PSY 8425 Organizational Psychology
PSY 8475 Organizational Training
PSY 8625 Psychopathology of Childhood
PSY 8650 Psychology of Child and Adolescent Development
PSY 8750 Behavior Modification Approaches in Counseling
PSY 8800 Psychology of Personal Adjustment
PSY 8825 Psychology of Personnel Administration
PSY 8850 Personality Theories
PSY 8875 Psychology of Organizational Change

COURSE DESCRIPTIONS

PSY 8000 Seminar in Research: Concepts, Issues, and Methods Basic issues of experimental design, methodology, ethics, procedures, and philosophy in general-experimental psychology. (3 cr)

PSY 8050 Biopsychology Basic principles of neurophysiology, neuroanatomy, and endocrinology and their application in the experimental analysis of behavioral processes. (3 cr) Two two-hour classes per week.

PSY 8100 Statistics and Experimental Design Basic principles in experimental design; foundations and applications of analysis of variance, covariance, and multiple regression. (3 cr)
PSY 8150 Cognitive Psychology  Theory and research in human learning, memory, and cognitive processes. (3 cr) Lecture/Lab. Two two-hour classes per week.

PSY 8175 Animal Learning and Cognition  Seminar exploring contemporary views of learning and simple cognitive processes as developed from laboratory studies of non-human animals. (3 cr)

PSY 8200 Perception  Survey of sensation and perception, primarily human, emphasizing the relevance of sensory processing to our daily lives. (3 cr)

PSY 8225 Psychopathology  Examination of contemporary theories and research on classification, etiology, and treatment of mental and behavioral disorders. (3 cr)

PSY 8275 Approaches to Psychotherapy  Examination of the major theoretical positions within contemporary psychotherapy and their clinical applications to human behavior. (3 cr)

PSY 8300 Development Psychology  An investigation of the development of the principal psychological processes of learning, perception, and motivation with emphasis on phylogenetic comparisons and the effects of early experiences on these processes in the mature organism. (3 cr)

PSY 8325 Psychological Testing  Examination of psychometric principles underlying the development and validation of psychological tests, and techniques for administration and interpretation of selected tests. (3 cr)

PSY 8350 History and Systems  Overview of major concepts and theories of psychology presented in a historical context. (3 cr)

PSY 8400 Personality: Empirical Research  Seminar in design, conduct, and evaluation of personality research. (3 cr) Pre-reqs: Undergraduate statistics and personality.

PSY 8425 Organizational Psychology  Examination of behavior in an organizational structure emphasizing applications such as personnel administration, motivation, leadership, and organizational development. (3 cr)

PSY 8450 Psychological Measurement  Theoretical issues in the measurement of psychological dimensions, with special consideration of approaches to the quantification of both sensory and non-sensory continua. (3 cr)

PSY 8475 Organizational Training  Theories and practices for the development of training programs including techniques to design and present training sessions. Active student participation required. (3 cr)

PSY 8500 Psychopharmacology  Effects of drugs on the neurochemistry of brain systems which control instinctive and learned behavior patterns. (3 cr)

PSY 8550 Social Psychology  Contemporary social psychological theory and research. (3 cr)

PSY 8625 Psychopathology of Childhood  A survey of the behavioral and emotional disorders of childhood. (3 cr)

PSY 8650 Psychology of Child and Adolescent Development  A description and explanation of the courses of psychological development from infancy to adulthood. (3 cr)

PSY 8750 Behavior Modification  Approaches in Counseling Cognitive-behavioral techniques applied to problems in school, industrial, family, and institutional settings. (3 cr)
PSY 8800 Psychology of Personal Adjustment Examination of the nature and variety of healthy and disturbed personalities from the framework of the counseling profession. (3 cr)

PSY 8825 Psychology of Personnel Administration The role of psychological factors in personnel decisions, including the application of psychological assessments to personnel selection and advancement decisions. (3 cr) Pre-req: HRD 8007 or consent from instructor. Laptops Recommended

PSY 8850 Personality Theories Selected major theories of personality and their applications in counseling and psychotherapy. (3 cr)

PSY 8875 Psychology of Organizational Change Diagnostic techniques for identifying organizational problems. Strategic organizational change for increased quality, productivity and employee satisfaction. (3 cr)

PSY 8900 Special Topics An intensive examination of selected individual topical areas within psychology. (3 cr)

PSY 9031 Individual Research Individual research project conducted under the direction of a Psychology faculty member. (3 cr) Pre-req: Permission of the student’s adviser and consent of the instructor.

PSY 9032, 9033 Thesis I, II (3 cr each)

PSY 9080 Thesis Continuation Must be taken subsequent to completion of PSY 9033 if thesis is not completed. (0 cr)
Villanova University

PUBLIC ADMINISTRATION

Professors: Richard M. Jacobs, O.S.A., Ph.D., Educational Leadership, Public Administration; Craig M. Wheeland, Ph.D., Political Science, Public Administration.

Associate Professors: Christine Kelleher Palus, Ph.D., Political Science; Catherine Wilson, Ph.D., Political Science, Public Administration.

Assistant Professors: Theodore Arapis, Ph.D.; Public Administration; Lauren Miltenberger, Ph.D., Urban Affairs and Public Policy, Public Administration.


PROGRAM DESCRIPTION

Public administration can be defined as the organization and management of people and materials to achieve public purposes. The mission of the MPA program is to offer graduates the knowledge of values, roles, skills, and practices that will help them become competent professionals capable of ethical, intelligent, and creative leadership in the public service. This program is offered either on-campus or online. The description below primarily describes the campus-based program. For information on the fully online program, please visit gradartsci.villanova.edu and look for the online program in the program list.

DEGREE REQUIREMENTS

The MPA degree is a 36- to 39-credit program designed to prepare students for management careers in the public and nonprofit sector. Students will meet with the MPA Director when they enter the program in order to develop a plan of study. Subsequent semesters they meet with their assigned advisor. Required courses provide students with the knowledge of public administration theory and history, statistical analysis and research methods, organization theory and design, and the management of financial and human resources needed to be successful in their careers. Elective courses provide students with the options they need to prepare a curriculum tailored to gain a personalized graduate degree in public administration.

The MPA requires supervisory or management experience in the field. Students starting the program without such experience are required to complete a three-credit internship (MPA 8010). Students work with the MPA Director to arrange internships. Students with supervisory or managerial experience in public administration may apply for a waiver of MPA 8010 by submitting a written request to the MPA Director. Students completing an internship will have a 39-credit program. Students must work 300 hours in their internship, submit memos to the MPA Director every three weeks, and write a concluding paper to earn three credits.
Graduate Studies

Students also must pass a written comprehensive examination to complete the degree. The comprehensive exam is designed to provide students with the opportunity to integrate and to use the knowledge they’ve gained from their courses. Students are expected to apply ideas (i.e., theories, concepts, principles, techniques, and/or examples) learned in the MPA program accurately and offer a reasonable argument defending their approaches to exam questions.

ADMISSION REQUIREMENTS
In addition to the admission material required by Graduate Studies, applicants must submit three letters of recommendation, Graduate Record Examination (GRE) scores for the general aptitude test, a two-page narrative explaining their career objectives and reasons for seeking admission, and a resume. Note: if you have three years working experience involving relevant administrative experience, you may ask the MPA Director to waive the GRE requirement. All applicants who are applying for a tuition scholarship must take the GRE. Limited financial support in the form of tuition scholarships is available. In order to be considered, applications must be completed and received by February 1. Only matriculated students are eligible for financial support.

Admission requirements for all certificate programs include materials required by Graduate Studies, statement of goals, and two letters of recommendation.

GRADUATE CERTIFICATE IN PUBLIC ADMINISTRATION
The Graduate Certificate in Public Administration is an option for individuals who do not seek a Master’s degree, or who wish to combine a specialization in public administration with a Master’s degree they have already earned or will earn. For example, students who have earned or are in the process of earning an MBA, an MA in Political Science, MA in Political Science, Theater, History, or Theology may want to earn certificates in public administration in order to enhance their careers with government and/or nonprofit organizations.

The Graduate Certificate in Public Administration is a 15-credit program; MPA 8001 and MPA 8002 plus nine credits of electives from the regular graduate courses offered for MPA students. The program may be enrolled in as either a pre-Master’s or post-Master’s Certificate program.

GRADUATE CERTIFICATE IN CITY MANAGEMENT
The Graduate Certificate in City Management is based on the International City/County Management Association’s inventory of 17 Practices for effective local government management. Students may enroll in the Certificate program as (1) a pre-Master’s certificate, (2) a specialization with the M.P.A. program, or (3) as a post-Master’s certificate. The Certificate is a 15-credit program.

There are three required courses:

- MPA 8500 Effective City Management (3 credits)
- MPA 8550 Urban Politics and Government (3 credits)
- MPA 8003 Financial Management (3 credits)
Villanova University

Students choose six credits of electives from the following courses:

- MPA 8800 Managing Public Networks (3 credits)
- MPA 8400 Strategic Planning (3 credits)
- MPA 8299 Topic: Land Use and Zoning (1 credit)
- MPA 8299 Topic: Performance Measurement (1 credit)
- MPA 8299 Topic: Economic Development Strategies (1 credit)
- MPA 8299 Topic: Debt Management (1 credit)
- MPA 8299 Topic: Governmental Financial Reporting (1 credit)
- MPA 8299 Topic: Labor Relations (1 credit)
- MPA 8299 Topic: Program Evaluation (1 credit)
- MPA 8299 Topic: Effective Public Affairs (1 credit)
- MPA 8299 Topic: Emergency Management (1 credit)

GRADUATE CERTIFICATE IN NONPROFIT MANAGEMENT

The Graduate Certificate in Nonprofit Management was designed based on best practices in nonprofit education as well as through consultations with students, alumni, and nonprofit professionals. Students may enroll in the Certificate program as (1) a pre-Master’s certificate, (2) a specialization with the M.P.A. program, or (3) as a post-Master’s certificate. The Certificate is a 15-credit program.

There are three required courses:

- MPA 8600 Effective Nonprofit Management (3 credits)
- MPA 8700 Nonprofit Fundraising (3 credits)
- MPA 8003 Financial Management (3 credits)

Students choose six credits of electives from the following courses:

- MPA 8004 Public Personnel Management (3 credits)
- MPA 8100 Decision-Making (3 credits)
- MPA 8199 Cultural Competency (3 credits)
- MPA 8200 Administrative Communication (3 credits)
- MPA 8300 Leadership Ethics (3 credits)
- MPA 8400 Strategic Planning (3 credits)
- MPA 8800 Managing Public Networks (3 credits)
- MPA 8900 Public Policy (3 credits)
- LTX 4022 Law of Nonprofit Organizations* (3 credits)

*Students must have a GPA of 3.7 or greater to take this class.

- MPA 8299 Topic: Land-Use and Zoning (1 credit)
- MPA 8299 Topic: Economic Development Strategies (1 credit)
- MPA 8299 Topic: Program Evaluation (1 credit)
- MPA 8299 Topic: Effective Public Affairs (1 credit)
- MPA 8299 Topic: Emergency Management (1 credit)
- MPA 8299 Topic: Program Planning (1 credit)

In addition to the above electives, students may select one of the following Political Science courses:

- PSC 8700: Globalization (3 credits)
PSC 8775: Global Inequality (3 credits)

MPA 8012 and MPA 8013 (Individual Research I and II) may also be considered for the certificate with the permission of the MPA Director.

**JD-MPA JOINT DEGREE PROGRAM**
The JD-MPA joint degree program enables students to earn both a JD and an MPA degree simultaneously at Villanova.

Applicants must apply to the School of Law and the MPA Program and must meet the criteria for admission to both programs. The GRE is waived for JD-MPA students. Applicants are encouraged to apply to both programs before they begin their studies in either program. However, applicants may apply in the second semester of their enrollment in one of the programs. For example, JD students may apply to the MPA program during the second semester of their enrollment in the JD program.

Four law courses will count towards the JD and the MPA degree. Four MPA courses will count towards the JD and the MPA degree. Only students enrolled in the JD-MPA Program may have four courses in each program double counted as described above.

The MPA Director and the School of Law’s Associate Dean for Academic Affairs identify the Law and MPA courses that may count in each program. The School of Law will accept the four MPA courses toward the JD so long as the student earned a “C” or better. The School of Law will change the MPA courses to appear as Law courses on the transcript, but the grades for those courses will not affect the Law school grade point average (GPA).

The A&S Graduate Dean will accept four Law courses toward the MPA so long as the student earned a “C” or better. The Registrar will list the Law courses as Law courses on the MPA transcript, but the grades will not affect the MPA program GPA. In short, the Law courses will be treated as “transfer” credits.

Students must maintain a 2.75 GPA in the School of Law and a 3.00 GPA in the MPA program in order to remain in the JD-MPA program.

Students may complete one of Villanova’s joint graduate programs. For example, students may complete the JD-MBA or the JD-MPA, but not both.

While completing the JD degree, students must complete at least the four MPA courses that will count only in the MPA program and the four MPA courses that will count in both programs. The remaining four MPA courses may be taken after completing the JD degree. The MPA degree must be completed within the normal timeframe stated by Graduate Studies.
Students may not take MPA courses at another institution to complete the degree.

If a Law student works an externship approved by the Law School and by the MPA Director, then MPA 8010 will be waived. Otherwise, the student must complete an internship for an additional 3 MPA credits.

**MPA CURRICULUM**

We periodically update the types of courses we offer to reflect trends in the study of public administration as well as faculty expertise and interests. Individual research courses are reserved for advanced students with specific needs not met by available elective coursework. Approval for the individual research course must be obtained from the MPA Director. The MPA Director may also permit students to take as many as two elective courses from another program.

**Required Courses (18 credits)**

- MPA 8001 Public Administration Theory (3 credits)
- MPA 8002 Organization Theory (3 credits)
- MPA 8003 Financial Management (3 credits)
- MPA 8004 Public Personnel Management (3 credits)
- MPA 8005 Analysis and Research I (3 credits)
- MPA 8006 Analysis and Research II (3 credits)

**Elective Courses (18 credits)**

- MPA 8100 Decision-Making (3 credits)
- MPA 8200 Administrative Communication (3 credits)
- MPA 8300 Leadership Ethics (3 credits)
- MPA 8400 Strategic Planning (3 credits)
- MPA 8500 Effective City Management (3 credits)
- MPA 8550 Urban Politics and Government (3 credits)
- MPA 8600 Effective Nonprofit Management (3 credits)
- MPA 8700 Fundraising for Nonprofit Organizations (3 credits)
- MPA 8800 Managing Public Networks (3 credits)
- MPA 8900 Public Policy (3 credits)
- MPA 8199 Special Topics in Public Administration (3 credits)
- MPA 8299 Special Topics in Public Administration (1 credit)

**Contingent Courses**

- MPA 8010 Management Internship (3 credits)
- MPA 8012 Individual Research I (3 credits)
- MPA 8013 Individual Research II (3 credits)
COURSE DESCRIPTIONS

MPA 8001 Public Administration Theory
Tension between bureaucracy-democracy; theories about the nature and development of public administration in the United States. (3 cr)

MPA 8002 Organization Theory
The study of the similarities and differences in various formal and complex organizations, the structures and dynamics of these organizations, and the theories applicable to such organizations. (3 cr)

MPA 8003 Financial Management
The study of financial management of government and nonprofit organizations that will provide skills for evaluating alternative courses of action in financial decision making. Topics include the budgetary process, revenue policy, financial controls, debt management, and capital budgeting. (3 cr)

MPA 8004 Public Personnel Management
Public versus private personnel management; also topics such as recruitment, selection, training, career management, performance assessment, grievances and appeals. (3 cr)

MPA 8005 Analyses and Research I
An introduction to tools of research. Basic topics include research design, measurement, and methods of quantitative and qualitative data collection. (3 cr)

MPA 8006 Analyses and Research II
A focus on inferential statistics, including the analysis of contingency tables and regression analysis. Also how to present a quantitative analysis in a clear, concise research report. Lectures and assignments will be supported by use of a statistical computer package. (3 cr)

MPA 8010 Management Internship
Administrative field experience in an agency or organization. Permission of the MPA Director required. (3 cr)

MPA 8013 Individual Research II
An individual research project under the direction of public administration faculty member. Permission of MPA Director and consent of faculty member required. (3 cr)

MPA 8100 Decision-Making
The study of the decision making behavior of individuals, work-groups, departments, and complex organizations. The securing of consistency, the coordinating of various planning units, and the economizing of planning efforts in regard to decision making will also be included. (3 cr)

MPA 8199 Special Topics in Public Administration
Selected subjects of special interest in public administration. (3 cr)

MPA 8200 Administrative Communication
The study of the communication process within and among complex organizations and the listening, writing, and speaking skills needed to promote better relations among individuals and organizations. (3 cr)

MPA 8299 Special Topics in Public Administration
Selected subjects of special interest in public administration. Three one-credit courses may be used to substitute for a three-credit elective. (3 cr)

MPA 8300 Leadership Ethics
Examines assumptions implicit in various organizational designs and highlights the importance of fidelity to value-based decision-making. (3 cr)

MPA 8400 Strategic Planning
The study of strategic planning and strategic management with special emphasis upon planning models as well as planning functions. (3 cr)

MPA 8500 Effective City Management
Relating to community, working with the governing body, creating the organizational climate for excellence, overseeing the delivery of services, promoting the community’s future, conducting relations with other governments, and maintaining personal effectiveness. (3 cr)
MPA 8550 Urban Politics and Government
City and suburb relations, governmental reform, race and ethnic politics, and economic change. (3 cr)

MPA 8600 Effective Nonprofit Management Focuses on: Nonprofit civic and political engagement, ethics and accountability, leadership and board development, financial management and performance measurement, volunteer management and recruitment, nonprofit marketing, communications, and branding, and social entrepreneurship.

MPA 8700 Fundraising for Nonprofit Organizations Topics include: development plans, institutional mission and readiness factors, development office operations, analysis of constituencies and effectiveness, communications and marketing, the role of the board of directors and volunteers, ethical considerations of fundraising, benchmarking, and the role of technology on philanthropy.

MPA 8800 Managing Public Networks
Theories of federalism, intergovernmental relations, and intergovernmental and intersectoral networks; collaborative decision-making approaches and negotiating skills. (3 cr)

MPA 8900 Public Policy Models of the policy making process; also special topics such as privatization, public enterprises, deregulation, and benefit-cost analysis. (3 cr)
THEATRE

Chair: David Cregan, O.S.A. Ph.D., Gender & Politics,
Irish Drama, Theatre for Social Change

Professors: Harriet Power, M.F.A., Acting, Directing, Styles
Associate Professor: Michael Hollinger, M.A., Playwriting, Acting
Assistant Professors: Earl Bader, Ph.D., Dramatic Literature;
James Ijames, Acting; Valerie M. Joyce, Ph.D., Script Analysis, Musical Theatre,
Teaching of Theatre; Dr. Raymond Saraceni, Dramaturgy

*Faculty constitutes Graduate Committee

DEPARTMENTAL PROGRAMS

M.A. in Theatre—Comprehensive Program
The M.A. in Theatre is a combination scholarly and practical program of study. It is for the student ready to deepen his or her understanding of the scope and content of world theatre and drama, from classic to contemporary, from East to West, as well as to enrich his or her skills in artistic areas. A core of recommended courses encompassing the history of theatrical production and the theory, criticism and analysis of dramatic literature supports a comprehensive range of laboratory studies in acting, design, playwriting and directing. While stabilizing the student in the fundamentals of research necessary for a theatre professional, the program provides experience in several of the component crafts of the theatre, culminating, in the final semester, in a specialized study in a selected artistic or research area. The knowledge and practice achieved in attaining the degree thus provide crucial tools for the developing theatre practitioner, educator or scholar.

A possible curriculum for the comprehensive program is as follows:

<table>
<thead>
<tr>
<th>FALL</th>
<th>SPRING</th>
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<tbody>
<tr>
<td>1st Year - Dramaturgy (Classic)</td>
<td>Dramaturgy (Modern)</td>
</tr>
<tr>
<td>Script Analysis</td>
<td>Scenography</td>
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<tr>
<td>Acting</td>
<td>Characterization OR Sound &amp; Movement</td>
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<tr>
<td>2nd Year - Vision &amp; Form (Classic)</td>
<td>Vision &amp; Form (Modern)</td>
</tr>
<tr>
<td>Directing</td>
<td>Styles</td>
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<tr>
<td>Playwriting</td>
<td>Modern Irish Drama</td>
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Graduate Certificate in Practical Theatre

This program is designed to give a broad background in practical theatre to the student who may not wish to pursue the M.A. degree. By taking five performance and production-related courses and participating in the theatre season, the student will acquire the vocabulary and methodology fundamental to the practice of theatre.

The curriculum is progressive, concentrating at first on Acting and Design, together with their supporting techniques, and finishing with the Directing course. Upon satisfactory completion of 15 credits, students will be awarded the Graduate Certificate in Practical Theatre.
Master of Arts in Theatre with Certificate in Nonprofit Management
This new program combines the scholarly, creative and practical curriculum of the M.A. in Theatre with a certificate designed to facilitate a career in the nonprofit sector. In addition to the theater curriculum, you will take a course in Arts Administration and three courses from Villanova’s Master of Public Administration program in nonprofit management: Financial Management of Nonprofits, Effective Nonprofit Management and Nonprofit Fundraising. This unique combination of creative, practical theatre and nonprofit management expertise can position you for a sustainable career in the nonprofit sector.

CORE COURSES

THE 7100 Principles of Acting Introduction to the actor’s creative process using exercises, improvisations and scenes. Emphasis on realistic, emotion-based approaches to preparation and performance. (3 cr)

THE 7110 Script Analysis An examination of the sociological, psychological and ideological circumstances of contemporary American scripts. The analytic technique is a line-by-line breakdown of a text to reveal the connection of action and characterization to theme. (3 cr)

THE 7120 Dramaturgy Tradition (Classic) Readings and analysis in the conventions of theatrical production, East and West, with an emphasis upon the preparation of dramaturgical guides for contemporary production of historical works. (3 cr)

THE 7130 Dramaturgy Tradition (Modern) Readings and analysis in the conventions of theatrical production, East and West, with an emphasis upon the preparation of dramaturgical guides for contemporary production of modern works. (3 cr)

THE 7140 Dramatic Vision & Form (Classic) A study of the radical juxtaposition of contrasting plays from different countries (East and West) and different eras (classic orientation) in the context of dramatic theory and criticism. (3 cr)

THE 7150 Dramatic Vision & Form (Modern) A study of the radical juxtaposition of contrasting plays from different countries (East and West) and different eras (modern orientation) in the context of dramatic theory and criticism. (3 cr)

ELECTIVE COURSES

THE 7200, 7210, 7220 Theatre Production Practicum Significant and responsible participation in department production program. (0 cr)

THE 8110 Voice and Movement Eastern and Western theories of voice production and body work applied through techniques to integrate the components of the performing artist’s physical instrument. (3 cr)

THE 8120 Characterization Acting explored through vocal and physical adjustments. Exercises and scene work in non-realistic theatre, with an emphasis on comedy. (3 cr)

THE 8130 Solo Performance A theoretical and practical examination of the contemporary media of performance art and its relationship to traditional theatre.

THE 8140 The Musical Theatre An examination of the musical theatre from historical and contemporary perspectives. Includes training in the development of artistic and organizational skills necessary for mounting a musical production. (3 cr)
THE 8160 Scenography Investigation of the stage metaphor and image for the director/actor and beginning designer. Emphasis on translating intellectual production concepts into visual ones. (3 cr)

THE 8170 Directing The process of stage directing, including script interpretation. Emphasis is on the use of action, movement, design and rhythm in staging techniques. (3 cr) Pre-req: THE 8000 or permission of instructor.

THE 8180 Directing Styles Directing employing the techniques used to approach classical texts. For actors, emphasis will be on the relationship between performance style and the language of classic texts; for directors, the requisite stage imagery. (3 cr) Pre-reqs: THE 7100, THE 8170.

THE 8190 Playwriting The principles of playwriting as seen through structural analysis of selected plays in a variety of genres. Assignments include scene writing and playwriting. (3 cr)

THE 8200 Theatre Topics Seminar course focusing on a specialized area of theatre studies (e.g., avant-garde, feminist, Asian, Melodrama), combining elements of theatre history, dramatic literature and criticism, as well as performance and production aspects of live theatre. (3 cr)

THE 9110 Dramaturgy A seminar on the methodology of production research, the relationship between the director and the dramaturgy, and the development of program material. (3 cr)

THE 9200 Special Studies—Production Advanced work in an area of technical production, including stage management and set construction, on a tutorial basis. Includes public presentation and defense of production skills. Limited to students in their final semester of study.

THE 9210 Special Studies—Research Advanced research in theatre history, dramaturgy, literature or criticism on a tutorial basis. Includes public presentation of a research project. Limited to students in their final semester of study.

THE 9220 Special Studies—Voice and Movement Advanced voice production and body work on a tutorial basis. Includes public performance of an original voice and movement program. Limited to students in their final semester of study.

THE 9230 Special Studies—Acting Advanced scene work in a range of acting styles on a tutorial basis. Includes public performance of a dramatic program. Limited to students in their final semester of study.

THE 9260 Special Studies—Scenography Advanced scenic design work on a tutorial basis. Includes public presentation and defense of a design project. Limited to students in their last semester of study.

THE 9270 Special Studies—Directing Advanced directing work on a one-act play or significant portion of a full-length play. Includes public presentation of the directing project. Limited to students in their final semester of study.

THE 9280 Special Studies—Playwriting Advanced scene writing or playwriting on a tutorial basis. Includes public reading of an original script. Limited to students in their final semester of study.
THEOLOGY

Professors: Paul Danove, Ph.D., New Testament, Literary and Linguistic Studies;
Edmund J. Dobbin, OSA, S.T.D., Systematic Theology;
Allan Fitzgerald, OSA, S.T.D., Augustine and Augustinianism;
Anthony J. Godzieba, Ph.D., Fundamental and Systematic Theology,
Philosophical Theology; Shams C. Inati, Ph.D., Islamic Studies;
Martin Laird, OSA, Ph.D., Early Christianity, Greek Patristics, Christianity and Neo-Platonism;
Bernard P. Prusak, J.C.D., Historical and Systematic Theology, Ecclesiology;
Michael J. Scanlon, OSA, S.T.D., The Josephine C. Connelly Chair of Christian Theology,
Foundational and Systematic Theology; Rodger Van Allen, Ph.D., Catholicism in the U.S.,
Theology of Christian Living; Carey E. Walsh, Ph.D., Hebrew Bible, Wisdom Literature

Associate Professors: Gerald J. Beyer, Ph.D., Catholic Social Thought,
Human Rights, Economic Justice;
Timothy M. Brunk, Ph.D., Systematic Theology, Sacraments;
Francis J. Caponi, OSA, Th.D., Systematic Theology
Mark Graham, Ph.D., Christian Ethics; Judith M. Hadley, Ph.D., Hebrew Bible,
Near Eastern Archaeology; Kevin L. Hughes, Ph.D., Medieval Theology and Spirituality;
Joseph Loya, OSA, Ph.D., Eastern Christianity;
Peter Spitaler, Th.D., New Testament, Pauline Studies;
Suzanne C. Toton, Ed.D., Religion and Education, Christian Ethics;
Fayette B. Veverka, Ed.D., Religion and Education, U.S. Religious History;

Assistant Professors: Christopher B. Barnett, D.Phil.,
Modern Theology, Kierkegaard, Christian Spirituality;
Kathleen Grimes, Ph.D., Christian Ethics
Stefanie Knauß, Th.D., Theology and Culture, Sexuality and Media, Theological
Anthropology; Rachel J. Smith, Ph.D., Medieval Christianity,
Historical Theology, Mystical Theology, Literature, History;
Jessica M. Murdoch, Ph.D., Foundational and Systematic Theology;
Jonathan P. Yates, Ph.D., Historical Theology, Early Christianity,
Augustine and Augustinianism

MASTER OF ARTS
The Master of Arts Program introduces students to the academic study of Biblical Literature,
Systematic and Fundamental Theology, Historical Theology and Augustinianism, Christian Ethics, Christian Spirituality and Contemplative Studies, and
Lay Ministry and permits the development of an academic concentration in these areas.
The program prepares for secondary school teaching or doctoral studies and provides fur-
ther foundation for those in educational or ministerial leadership. We emphasize a broad
understanding of the Catholic intellectual tradition in the light of the Second Vatican
Council. Our focus is the academic study of theology in the Augustinian Tradition, that
is, in dialogue with the questions raised by contemporary culture and the continuous
experience of human life.
Graduate Studies

Admission
A bachelor’s degree, eighteen undergraduate credits in Theology, Religion, or the equivalent, a 3.0 (or higher) undergraduate grade point average, and the results of the Graduate Record Examination are ordinarily required for admission to the program. In addition, applicants are asked to submit a 500-700 word statement of their objectives in seeking the degree and three recommendations from persons able to judge their academic potential. Candidates who majored in other fields or have a lower undergraduate GPA will also be considered for admission.

Requirements
For graduation, students must complete thirty-six credits of course work. Thesis is an option. Students also attend a research proseminar, pass an integrative examination or write an integrative thesis, and demonstrate reading comprehension in a foreign language.

CERTIFICATES
The department offers five Certificate programs:

i. Theological Studies
ii. Interdisciplinary Theological Inquiry
iii. Advanced Theological Studies
iv. Advanced Interdisciplinary Theological Inquiry
v. Pastoral Ministry

Each program permits students to develop concentrations and tailor courses to their specific needs and professional objectives. The programs include coursework in theological and interdisciplinary studies. Courses taken in a Certificate program may be applied toward the master’s degree.

Eligibility
Candidates for the Certificates in Theological Studies, Interdisciplinary Theological Inquiry, and Pastoral Ministry hold a Bachelor’s degree in Education, the Humanities, the Social Sciences, or the Sciences from an accredited college or university with an undergraduate GPA of 3.0 or higher. Candidates for the Certificates in Advanced Theological Studies and Advanced Interdisciplinary Theological Inquiry have already completed a graduate degree in Theology at Villanova University or any other accredited college or university, with a graduate GPA of 3.0 or higher. Applicants who hold graduate degrees in other fields may also be admitted, subject to the approval of the department’s Graduate Director of Admissions.

Admission
Applicants meet the same requirements as for admission to the M.A. Program but only submit two letters of recommendation. GRE scores are not required. For detailed information, see the department website.
J O I N T  P R O G R A M S
These innovative programs offer students the opportunity to combine the MA in Theology with a departmental or extra-departmental Certificate.

i. Combined Master of Arts & Certificate in Pastoral Ministry & Off-Campus Practicum (Full-time or Part-time; 42 credits; Day and Evening Course Offerings)
ii. Combined Master of Arts & Certificate in Pastoral Ministry & Campus Ministry Internship (Full-time, 42 credits, On-campus Practicum)
iii. Combined Master of Arts & Certificate in History (Full-time or Part-time; 39 credits; Day and Evening Course Offerings)
iv. Combined Master of Arts & Certificate in Education (Full-time or Part-time; 42 credits; Day and Evening Course Offerings)
v. Combined Master of Arts & Certificate in Non-Profit Management (Full-time or Part-time; 42 credits; Day and Evening Course Offerings)
vi. Combined Master of Arts & Certificate in Theology (Full-time or Part-time; 48 credits; Day and Evening Course Offerings)

D U A L  M A S T E R ' S  D E G R E E S
Dual degree programs provide alternate paths to Villanova degrees. They are especially designed for students who wish to complement their theological education with studies in related or different disciplines. We currently offer dual Master's degree programs in Theology & History and Theology & Public Administration, Theology and Church Management, and Theology and English. Other individualized programs are possible.

C O U R S E S

THL 8000 Foundation Course An examination of the basic questions in the contemporary theological project: historical & hermeneutical consciousness, the question of God, religious experience, revelation & faith, the relationship between scripture & tradition, etc. Students will be introduced to contemporary theology by appropriating the various “turns” in recent thought: “the turn to the subject,” “the socio-political turn,” & “the symbolico-linguistic turn.” (3 cr)

THL 8090 Themes in Fundamental Theology Specialized treatment of a particular area in this field. (3 cr)

THL 8100 The Bible and Archaeology Survey of archaeology and the cultural contexts of peoples and places depicted in the Bible; explanation of archaeological methodology and history of excavations in the ancient Near East and the Holy Land; examination of discoveries related to the Bible. (3 cr)

THL 8110 Pentateuch An examination of the first five books of the Hebrew Bible, with emphasis on the theology of Deuteronomy as the interpretive framework of the history of Israelite and Judean peoples. Relevant ancient near Eastern beliefs and customs which appear in the Pentateuchal tradition will also be considered. (3 cr)

THL 8120 Prophets The Hebrew Prophets’ involvement in the political and ethical problems of their day; their awareness of Divine Presence in history; the impact of the prophetic personality and its relevancy for our time. (3 cr)

THL 8130 Wisdom Literature An investigation of the Jewish Wisdom literature and the importance of its thought patterns for early and contemporary Christian theology. (3 cr)

THL 8140 Topics in Hebrew Bible Specialized treatment of a particular area in this field; see Department announcements. (3 cr)
THL 8150 Johannine Literature The Gospel, Epistles and Apocalypse of John, and their main theological themes. Emphasis on the theology of the Word and the passion, death and resurrection accounts. (3 cr)

THL 8160 Pauline Literature The theological themes of the Pauline corpus: faith, Christology, Soteriology, Eschatology. (3 cr)

THL 8170 Synoptic Gospels The historical-critical and contemporary literary approaches to the Gospels; the theologies of Mark, Matthew and Luke. (3 cr)

THL 8190 Topics in New Testament Specialized treatment of a particular area in this field. (3 cr)

THL 8200 Christology New Testament Christologies; concilar interpretations of Jesus and overview of subsequent theological tradition. Contemporary issues. (3 cr)

THL 8210 Ecclesiology The origins and development of the Ecclesia: discipleship, ministry, mission, teaching; developing a vision for the third millennium. (3 cr)

THL 8240 Sacrament in Life of Church Christian sacramentality as evident in the person of Jesus, the community of the Church, and an incarnational view of creation; the transformation of ecclesial rites under the impact of contemporary studies in symbol and ritual. (3 cr)

THL 8250 Christian Eschatology Biblical eschatology: prophetic and apocalyptic; Jesus and the symbol, Kingdom of God; later theologies of history; hope for history and hope for life eternal. (3 cr)

THL 8260 Christian Doctrine of God A critical corrective of the long hegemony of philosophical theology through the contemporary emphasis on God’s Self-disclosure in the Hebrew Scriptures, and definitively, in Jesus of Nazareth; current responses to modern and contemporary critiques of theism; the contributions of transcendental Thomism, process theology, and political theology. Retrieval of the doctrine of the Trinity. (3 cr)

THL 8270 Christian Anthropology A systematic exploration of the Christian tradition on the structure of human existence: biblical images of the human; grace and salvation in Augustinian and Thomistic anthropology; retrieval of the communal dimensions of personhood and salvation. (3 cr)

THL 8290 Themes in Theology Specialized treatment of a particular area in this field. (3 cr)

THL 8310 Sources of Christian Theological Ethics Examination of classical and contemporary Roman Catholic and Protestant figures and approaches to theological ethics; interpreting and using sources such as scripture, tradition, secular disciplines of knowledge, and experience in moral reasoning and argument. (3 cr)

THL 8320 Catholic Theological Ethics Review and assessment of Catholic moral tradition; includes particular attention to post-Vatican II developments, currently contested moral questions, and pressing needs for future Catholic theological ethics. (3 cr)

THL 8350 Ethics Among the Disciplines Consideration of particular ethical issues with explicit attention to the intersections between Christian moral reflection and other disciplines of inquiry, which may include philosophy, literature, and the natural and social sciences. (3 cr)

THL 8360 Love and Moral Discernment The meaning of Christian love and the place of agape in Christian moral life; the interrelations of love for God, neighbor, and self; the relation between agape and special bonds such as friendship, marriage, family, and civil/political affiliation. (3 cr)
THL 8370 Christ Ethics and the 21st Century The meaning and implications of social justice for individuals, collectives, nations, and the environment. Issues considered include, among others: global poverty, globalization, war and peace, environmental ethics. (3 cr)

THL 8380 Ethics in Liberation Context Critical and emancipatory approaches to Christian ethics in, e.g., liberation theologies, feminist ethics, and emergent contextual theologies among peoples and internationally. (3 cr)

THL 8390 Themes in Ethics Consideration of special ethical issues, debates, or thinkers which are not part of the regular graduate ethics curriculum. (3 cr)

THL 8400 Thought of Augustine Surveys Christian historical theology or church history. Study of key concepts in Augustine’s thought. (3 cr)

THL 8410 Topics in Ancient Christianity Course in Christian historical theology or church history; focus is on particular issues, challenges or persons as illustrative of the time or area bracket. (3 cr)

THL 8420 Topics in Medieval and Early Modern Christianity Course in Christian historical theology or church history; focus is on particular issues, challenges or persons as illustrative of the time or area bracket. (3 cr)

THL 8430 Topics in Eastern Christianity Course in Christian historical theology or church history; focus is on particular issues, challenges or persons as illustrative of the time or area bracket. (3 cr)

THL 8440 Topics in Modern Christianity Course in Christian historical theology or church history; focus is on particular issues, challenges or persons as illustrative of the time or area bracket. (3 cr)

THL 8450 Topics in American Christianity Course in Christian historical theology or church history; focus is on particular issues, challenges or persons as illustrative of the time or area bracket. (3 cr)

THL 8460 Topics in Augustinian Thought Course in Christian historical theology or church history; study of continuation and adaptation of Augustine’s thought by his interpreters. (3 cr)

THL 8470 History of Contemporary Theology Course in Christian historical theology or church history; study of history of theological reflection. (3 cr)

THL 8480 Texts In Contexts Introduction to crucial, foundational issues in history and historical theology; the study and use of primary sources; ways of “doing history” (method); and types of historical inquiry.

THL 8495 Topics in Church History Themes in Christian historical theology or church history; see Department announcements. (3 cr)

THL 8510 Topics in Spirituality Study of Christian spiritual traditions or themes (western or non-western) in ancient, medieval, early modern, modern, or contemporary times. (3 cr)

THL 8600 Topics in Ecumenical and Interreligious Dialogue The ideal of ecumenism; factors in its realization; the emergence of religious dialogue in a pluralistic world. (3 cr)

THL 8700 Theology Among the Disciplines Intersections between theological studies and other disciplines of inquiry, for example, philosophy education, religious studies, and the natural and social sciences. (3 cr)
Graduate Studies

THL 8800/01 Pastoral Ministry and Counseling Practice I
Integrated approach to academic, human, theological, spiritual dimensions of Christian ministry. Exploration of contemporary theology of ecclesial ministry, origin, evolution, function of ministry within Church; Church’s teachings on baptismal vocation. Includes ministry practicum (10 hrs/wk) approved by instructor.

THL 8810/11 - Pastoral Ministry and Counseling Practice II
Topics include ministry of Jesus; ministry of Church in the world; role of laity in ecclesial ministry; stages of faith development; prayer and spirituality; professional skills; ethical and pastoral practices; leadership models; theological reflection on ministerial experience. Includes ministry practicum (10 hrs/wk) approved by instructor.

THL 9000 Directed Research In exceptional cases and for sufficient reason, a student may register for directed research, after consultation with the Director, who will decide the merits of the case. (3 cr)
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