



VILLANOVA
UNIVERSITY



Graduate Liberal Arts and Sciences

HANDBOOK OF DEGREE REQUIREMENTS

2017-2018

VILLANOVA UNIVERSITY

Handbook of Degree Requirements

**GRADUATE STUDIES
LIBERAL ARTS AND SCIENCES**

INFORMATION FOR CAMPUS-BASED PROGRAMS

2017-2018
VILLANOVA, PENNSYLVANIA

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 Ph.D. programs in Philosophy and Theology. 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 handbook 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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ACADEMIC CALENDAR: 2017-2018

Fall 2017

Aug 23 (W)	Classes begin
Aug 30 (W)	Last day for application for Language Examination, made at office of the Department of Romance Languages and Literatures, 303 St. Augustine Center”
Aug 31 (Th)	Last day for changes in registration status (drops, adds) REFER TO “REFUNDS” IN CATALOG
Sept 04 (M)	Labor Day - No Classes
Sept 09 (Sat)	Language Examination, 1:00 P.M.
Sept 13 (W)	Last day for application for comprehensive examination made at the office of the department chairperson
Sept 15 (Fri)	December Graduation Deadline (Online via myNOVA). For students expecting to complete degree requirements by the end of the fall semester
Oct 07 (Sat)	Semester recess begins after last class (Saturday)
Oct 16 (M)	Classes resume
Oct 18 (W)	Grades Due (Noon)
Oct 20 (Fri)	Registration Advising Begins for Spring 2018 semester. CHECK myNOVA PORTAL FOR REGISTRATION DATE
Nov 08 (W)	Last Day for Authorized Withdrawal without Academic Penalty (WX). REFER TO “REFUNDS” IN CATALOG
Nov 18 (Sat)	Recommended date for written comprehensive examination; hours and place determined by program
Nov. 21 (Tu)	Thanksgiving Recess begins after last class (Tuesday)
Nov 27 (M)	Classes Resume
Dec. 08 (Fri)	Thesis/Dissertation due. Instructions for title and approval pages and upload to Proquest can be found at this link: http://www1.villanova.edu/villanova/artsci/graduate/currentstudents/thesis.html
Dec 11 (M)	Final Day of Classes
Dec 12 (Tu)	Reading Day (Undergraduates only)
Dec 13-19 (W - Tu)	Final Examinations
Jan 26, 2018 (Fri)	Last day for submission of work to remove incomplete (“N”) grade
Feb 09, 2018 (Fri)	Last day for “N” grade conversion of final grade (Fall 2017 semester). Grade change forms must be received by Registrar BEFORE 5:00 PM.

ACADEMIC CALENDAR: 2017-2018

Spring 2018*

Jan 15 (M)	Martin Luther King Day (no classes)
Jan 15 (M)	May Graduation Deadline (Online via myNOVA). For students expecting to complete degree requirements by the end of the spring semester
Jan 16 (Tu)	Classes Begin
Jan 19 (Fri)	Last day for application for Language Examination, made at office of the Department of Romance Languages and Literatures, 303 St. Augustine Center
Jan 24 (W)	Last day for changes in registration status (drops, adds) REFER TO “REFUNDS” IN CATALOG
Feb 03 (Sat)	Language examination, 1:00 PM
Feb 05 (M)	Last day for application for comprehensive examination made at the office of the department chairperson
Mar 03 (Sat)	Semester recess begins after last class (Saturday)
Mar 12 (M)	Classes Resume
Mar 14 (W)	Grades Due (Noon)
Mar 16 (Fri)	Registration Advising Begins for Summer and Fall semesters. CHECK myNOVA PORTAL FOR REGISTRATION DATE
Mar 17 (Sat)	Recommended date for written comprehensive examination; hours and place determined by program
Mar 28 (W)	Easter Recess Begins after last class (Wednesday)
Apr 03 (Tu)	Classes Resume
Apr 04 (W)	Last Day for Authorized Withdrawal without Academic Penalty (WX). REFER TO “REFUNDS” IN CATALOG
Apr 27 (Fri)	Thesis/Dissertation due. Instructions for title and approval pages and upload to Proquest can be found at this link: http://www1.villanova.edu/villanova/artsci/graduate/currentstudents/thesis.html
May 03 (Th)	Final Day of Classes
May 04 (Fri)	Reading Day (Undergraduates only)
May 05 - 11 (Sat - Fri)	Final Examinations (No exams on Sunday May 6)
May 18 - 19 (Fri - Sat)	Baccalaureate and Commencement (http://www1.villanova.edu/villanova/president/initiatives/commencement.html)
June 29 (Fri)	Last day for submission of work to remove incomplete (“N”) grade
July 13 (Fri)	Last day for “N” grade conversion of final grade (Spring 2018 semester). Grade change forms must be received by Registrar BEFORE 5:00 PM.

*Beginning in Spring 2018, the on-campus Human Resource Development program will be operating under a 8-week calendar. Please view <http://www1.villanova.edu/villanova/artsci/hrd.html> for the academic calendar for all graduate programs in Human Resource Development.

Graduate Studies—Liberal Arts and Sciences

Administration

Graduate Dean CHRISTINE KELLEHER PALUS, Ph.D.

Director EMILY MCCLOSKEY, M.A.

Programs	Office
Applied Statistics	305 SAC
Biology	147 MEN
Chemistry	215A MEN
Classical Studies	304 SAC
Communication	27 GAR
Computing Sciences	161 MEN
Counseling	302 SAC
Education	302 SAC
English	402 SAC
Environmental Science	G67H MEN
Hispanic Studies	303 SAC
History	403 SAC
Human Resource Development	119 STM
Liberal Studies	103 SAC
Mathematics and Statistics	305 SAC
Philosophy	108 SAC
Political Science	202 SAC
Psychology	334 TOL
Public Administration	486 SAC
Software Engineering	161 MEN
Statistics	305 SAC
Theatre	205 SAC
Theology and Religious Studies	203 SAC

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 comprise the Admissions Committee.

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.

ACADEMIC MISSION OF GRADUATE ARTS AND SCIENCES

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 and Theology.

Master of Arts with majors in Biology, Classical Studies, Communication, Education, English, Hispanic Studies, History, Liberal Studies, Mathematics, Political Science, Theatre and Theology.

Master of Science in Applied Statistics, Biology, Chemistry, Computing Sciences, Counseling, Environmental Science, Human Resource Development, Psychology, and Software Engineering.

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.

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 Provost's web pages.

ACADEMIC PERFORMANCE AND 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. Individual doctoral programs may have higher grade-point average requirements; please consult the Program Director.

A student whose GPA falls below 3.0 is notified by email that he/she is on academic probation, and he/she is given either one additional semester if a fulltime student, or up to nine additional credits if a part-time student, to bring the cumulative GPA up to a 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 the probationary period that is so low it becomes mathematically impossible for him/her to rise above 3.0 in additional credits. In those cases, the student is dismissed before nine credits are taken. A student who succeeds in raising the cumulative GPA above 3.0 for one or more semesters after being on academic probation, but in a later semester fall below a 3.0 cumulative 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 his/her chances of rising above 3.0 in one additional semester of work or in up to nine additional credits is impossible, this student may also be immediately dismissed from the university before being placed on probation.

A student is not required to repeat courses in which the grade of F has been earned unless the courses are specifically required by his/her 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.

SATISFACTORY PROGRESS – DOCTORAL DEGREE STUDENTS

The satisfactory progress of doctoral students is assessed annually by the individual doctoral programs on the basis of academic performance, as well as by meeting the various deadlines for language examinations, qualifying examinations, dissertation proposal defense, and any other specified requirements. A student who fails to maintain satisfactory progress will be advised in writing of corrective steps to take by the Graduate Program Director, in consultation with the Graduate Dean, and apprised of the consequences of failing to take those steps. A student who fails to maintain satisfactory progress may lose eligibility for financial aid or have one's candidacy terminated. Additionally, each doctoral program maintains its own standards of satisfactory academic progress and corrective procedures, and all students must familiarize themselves with them. In cases of evident failure to achieve progress, a student may be dismissed from the degree program without a probationary period.

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.

APPLYING FOR GRADUATION

Students must use MyNova during the dates specified in the online academic calendar to apply for graduation. Failure to apply via the online system by the deadlines listed will result in the student being charged a \$100 late fee.

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 Academic Calendar. 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) and Theology Ph.D. 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 online on the Provost's web pages.

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 on the Provost's web pages.

DISMISSAL – MASTER'S DEGREE STUDENTS

There are a variety of circumstances that could lead to a Master's degree student dismissal. Please see the policies on academic performance and probation, non-academic performance expectations 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 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.

DISMISSAL – DOCTORAL DEGREE STUDENTS

If a student's progress is determined by the program to be unsatisfactory, the Graduate Program Director will confer with the Office of Graduate Studies, typically the Dean of Graduate Studies, regarding the termination of that student's candidacy for the degree. The department will communicate to the student the reasons for recommending dismissal

to the Graduate Dean, and Office of Graduate Studies will proceed with the formal termination of candidacy by sending an official letter to the student and copying relevant faculty and administrators.

The effective date of dismissal will be included in the official notification from the Office of Graduate Studies. Typically the dismissal is effective immediately, or at the end of the then-current semester. However, the program may request a later effective date of dismissal if it provides compelling reasons to do so.

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 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 fulltime status is 6 credits/fall or

Graduate Studies

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:

A	Outstanding	C+		WX	Approved Withdrawal
A-		C	Fair	N	Incomplete
B+		F	Failure	AU	Audit
B	Good	S	Satisfactory	IP	In Progress
B-		U	Unsatisfactory		

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 our web pages. The IP grade is reserved for thesis and dissertation courses and CSC 9020, 9021 only.

After the dates stipulated in the Academic Calendar, 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 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 POLICIES

Students requesting a leave of absence (medical, military, parental, or personal) must submit an email detailing the reasons for the Leave Request to the graduate program director who will forward it to the Graduate Dean for review.

There are several different types of leave that students may request:

Personal, Military, Medical and Family Leaves

Students receiving financial aid should consult with the Office of Financial Assistance to understand how leaves of absences may affect their loans. All students should work with Bursar's Office to ensure any outstanding balance is settled before their leave goes into effect. International students requesting a leave of absence should consult with the Office of International Students before submitting their paperwork to the Program Director. Finally, all students should also consult with their personal health insurance provider about implications for their coverage during any period of leave from the university.

Personal Leave of Absence

Students who find it necessary to interrupt their studies may apply in writing to their Graduate Program Director for a personal leave of absence. A personal leave of absence is defined as any leave of absence other than one granted for medical or family reasons or for military service (see below). The Graduate Director must approve the request for a leave of absence before the petition is sent to the Graduate Dean for review. A total of no more than two semesters of personal leave of absence are allowed in a student's graduate career. Up to two semesters of leave may be granted at any one time. Leaves of absence for personal reasons extend time to degree requirements, including any deadlines regarding qualifying or comprehensive exams.

Additional leaves for medical reasons, family, or military duties, when properly approved, will not be counted against the two semester limit for leaves of absence. No degree requirements can be completed during leaves of absence, nor can a student graduate during a leave of absence. However, personal leaves of absence will not alter deadlines for completing work in a course for which an incomplete grade was received.

Military Leave of Absence

A student who is called to active military duty will be permitted a military leave of absence. The student should report the obligation for military service in writing to the Dean as soon as reasonably possible after the student receives orders. Please consult the Dean to request refunds. The student's courses will be marked with a "WX" grade. Approved periods of military leave of absence will extend the time permitted to complete degree requirements and to graduate.

Medical Leave of Absence

A student may experience physical or psychological conditions that significantly impair the student's ability to function successfully or safely in his or her role as a student. In such cases, the student may decide that time away from the University for treatment and recovery can help restore functioning to a level that will enable the student to return to the University and perform successfully in and out of the classroom. The University has an interest in students receiving appropriate care not only for their own well-being, but also for the well-being of the larger community with whom the student interacts.

When a student initiates a MLOA, Villanova University may establish criteria regarding the student's eligibility for returning to the campus community. The criteria include, but are not limited to, compelling evidence that the condition that precipitated the need for the MLOA has been sufficiently treated or ameliorated to the point where it will no longer adversely affect the student's or the community's safety or functioning.

The MLOA request may be made at any time during the semester, but must be completed no later than the last day of classes in a semester, including the requisite evaluation and any related paperwork for the Dean's office. Requests not completed by the last day of classes will be considered late requests and will be considered for the following semester barring exceptional circumstances.

Graduate Studies

The Graduate Dean's office will make the final determination whether the MLOA will be granted, in consultation with University's health professionals. The Dean's office will specify the terms of the MLOA including conditions for return to the University following the leave. At a minimum, a MLOA will be for one semester and, depending on the timing of the request and the nature of the circumstances, the MLOA may involve additional semesters to allow sufficient time for full recovery, a sustained period of stability, and to increase the student's opportunity for success upon return to the University. When the student seeks to return to the University, the Dean's office granting the leave will determine whether the student has satisfied the conditions and is permitted to return.

Three steps are required for approval of a MLOA are:

- The student must schedule an appointment with the Student Health Center or the University Counseling Center for a MLOA evaluation.
- The student must schedule an appointment with the Dean of Graduate Studies to discuss and review the MLOA request.
- The student must complete the MLOA Request Form and submit it to the Dean of Graduate Studies.

Approved periods of medical leave will extend the time permitted to complete degree requirements and to graduate.

Family Leave of Absence

The Office of Graduate Studies offers support for graduate students who need to take leave in connection with the birth of and/or full time care of a new child during their period of enrollment. The goal in offering this support is to allow graduate students to continue their studies with as little disruption as possible. Family leave is intended to enable the graduate student to continue to make progress toward the degree. Consequently, it does not grant additional semesters of funding, nor does it change the length of time permitted to complete degree requirements and to graduate. This policy requires communication and cooperation in good faith between the student seeking the leave, the faculty, and the student's department. The terms of the policy are as follows:

1. To be eligible for family leave, the graduate student must be the primary and full-time caregiver of a newborn child or a child five years old or younger newly placed in the home.
2. The graduate student must submit a written request no less than three months before the expected date of the start of the leave (if possible) to the Program Director who will forward it with a recommendation to the Graduate Dean for review.
3. Graduate students may take up to six weeks of family leave within the first six weeks immediately following the birth, adoption, or foster placement of a child. The six weeks of family leave must be taken consecutively immediately following the birth or placement of the new child. Students seeking parental leave shall provide documentation to Graduate Studies sufficient to demonstrate that they are the full-time primary care provider of the child.

4. During family leave, the graduate student may attend classes and work on course assignments to the extent possible, but the student's program director should advise the professors in these courses to be flexible about attendance and assignment deadlines during the period of leave. Upon the student's request, the student will be granted Incompletes in these courses, with the understanding that the courses should be completed by the end of the following semester.

FUNDING

When a leave is approved prior to the start of a new semester, funding will not continue for the leave period. Students who are approved for any type of leave after the add/drop date may continue to receive funding until the end of the semester when the leave was started.

Funding cannot be “banked” and taking a leave of any kind does not extend funding time upon return. Funding is only available for the original time period offered.

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 online.

TIME TO COMPLETE DEGREE

Master's Degree Students

Students in the on-campus Master's and Certificate programs must complete their degree requirements within a six-year time period from the date they first enrolled in the University (in any admitted status). Students in the online Master's programs must complete their degrees within four years from first enrollment.

Doctoral Degree Students

Fulltime students in the Philosophy Ph.D. program must complete all their degree requirements within an eight-year time period. Part-time doctoral students must complete all their degree requirements within a twelve-year time period. Requests for an extension will only be granted for up to two additional years and must be approved by the Dean of Graduate Studies (see Appeals Process). Any further extensions will only be approved in exceptional circumstances with proper documentation.

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 25% 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 25% of the 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 ON POLICIES AND RESOURCES.

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
PERMISSION TO PARTICIPATE IN COMMENCEMENT

Villanova University

Program Descriptions

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.

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, 0 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, 0 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 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 (4 cr) Prerequisites: BIO 3012 or BIO 3255 or BIO 3405 or BIO 4305, or one equivalent course, or consent of instructor.

DR. CURRY

BIO 7151 Biogeochemistry (2 cr) Two lectures a week

STAFF

BIO 7152 Biogeochemistry Laboratory (2 cr) Coreq: BIO 7151. Two laboratory periods per week.

STAFF

BIO 7201 Ecosystem Ecology (3 cr) Prerequisite: course in ecology or permission of instructor.

DR. CHAPMAN

BIO 7205 Comparative Physiology (4 cr) Pre-req: A course in animal physiology or invertebrate zoology. Two lectures and two laboratory periods per week.

DR. OLSON

BIO 7321 Immunology (formerly BIO 8321) (2 cr) Two lectures per week.

DR. BAMEZAI

BIO 7322 Immunology Laboratory (formerly 8322) (2 cr) COREQUISITE: BIO 7321. Five hours of laboratory per week.

DR. BAMEZAI

BIO 7331 Cancer Biology (3 cr) Prerequisite: Coursework in cell and/or molecular biology. DR. KNEPPER

BIO 7385 Global Change Ecology (4 cr) Prerequisite: course in ecology or permission of instructor.

DR. LANGLEY

BIO 7451 Behavioral Ecology (3 cr) Prerequisite: undergraduate course in ecology or animal behavior or permission of instructor.

DR. IYENGAR

BIO 7555 Molecular Ecology and Evolution (4 cr) Pre-reqs: Undergraduates: genetics, molecular biology; Graduates: two of the following: genetics, evolution, ecology, or molecular biology. Two lectures and two laboratory periods per week.

STAFF Occasional Offering

BIO 7601 Paleobiology (3 cr) Pre-req: A course in either Ecology or Evolution. Three lectures per week.

STAFF Occasional Offering

BIO 7705 Plant Ecology E (4 cr) Two lectures and two laboratory periods per week.
STAFF Occasional Offering

BIO 7755 Plant Ecophysiology Two lectures and two laboratory periods per week.
STAFF

BIO 7805 Biostatistics and Experimental Design (4 cr) Three lectures and one laboratory period per week.
DR. RUSSELL

BIO 7905 Eukaryotic Microbiology (4 cr) Two lectures and two laboratory periods per week.
STAFF Occasional Offering

BIO 7940 Special Topics in Biology (2 cr)

BIO 7950 Special Topics in Cell, Molecular, and Developmental Biology (2 cr)

BIO 7955 Biodiversity and Systematics (4 cr) Three lectures and one laboratory period per week.
DR. BAUER

BIO 7960 Advanced Topics in Cell, Molecular, and Developmental Biology (3 cr)

BIO 7962 CMDB Laboratory (1 cr) Three hours laboratory work per week.

BIO 7970 Special Topics in Ecology, Evolution and Organismal Biology (2 cr)

BIO 7980 Advanced Topics in Ecology, Evolution and Organismal Biology (3 cr)

BIO 7982 EEOB Laboratory (1 cr) Three hours laboratory work per week.

BIO 8051 Advanced Bacteriology (2 cr) Pre-req: A previous course in microbiology, molecular biology, or genetics is helpful, but not required. Two lectures per week.
DR. WILSON

BIO 8052 Advanced Bacteriology Laboratory (2 cr) Coreq: BIO 8051. Two laboratory periods per week.
DR. WILSON

BIO 8101 Molecular Genetics (3 cr) Pre-req: Undergraduate biochemistry or molecular biology. Three lectures per week.
STAFF

BIO 8151 Molecular Cell Biology (3 cr) Three lectures per week.

BIO 8171 Molecular Developmental Biology (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. Three lectures per week.
STAFF

Graduate Studies

BIO 8172 Molecular Development Lab Prerequisites: genetics; plus a cell, development, or molecular biology course; BIO 8295; or permission of instructor. Co-requisite: BIO 8171. (2 cr)

STAFF

BIO 8205 Imaging Technology (4 cr) Two lectures and two laboratory periods per week.

STAFF

BIO 8251 Endocrine Physiol/Pharmacology (2 cr) Pre-req: A course in animal physiology with laboratory. Two lectures per week.

DR. GARDNER

BIO 8252 Endocrine Physiol/Pharmacology Laboratory (2 cr) Coreq: BIO 8251.

Two laboratory periods per week.

DR. GARDNER

BIO 8295 Experimental Cell and Molecular Methods Two hours lecture and five hours laboratory per week.

DR. BAMEZAI/DR. WYKOFF

BIO 8321 Advanced Immunology (3 cr) Prerequisite: BIO 7321 or another immunology course or permission of instructor.

DR. BAMEZAI

BIO 8451 Molecular Evolutionary Genetics (3 cr) Three lectures per week.

DR. JACKMAN

BIO 8555 Neurophysiology (4 cr) Pre-req: A course in physiology or consent of the instructor. Three lectures and one laboratory period per week.

DR. STEPHENS

BIO 8601 Pharmacology (2 cr) Pre-reqs: Organic chemistry and a course in physiology or permission of the instructor. Two lectures per week.

DR. GARDNER

BIO 8602 Pharmacology Laboratory (2 cr) Coreq: BIO 601. Two laboratory periods per week. DR. GARDNER Occasional Offering

BIO 8655 Recombinant Gene Technology (4 cr) Pre-reqs: Organic Chemistry and undergraduate Genetics. Two lectures and two laboratory periods per week. DR.

DIBENEDETTO Occasional Offering

BIO 8705 Virology (4 cr) Two lectures and two laboratory periods per week.

DR. KNEPPER

BIO 8900 Seminar (1 cr)

STAFF

Villanova University

BIO 8910 BS/MS Research Thesis Preparation Co-requisite: BIO 8920 Restricted to Juniors in the Combined BS/MS degree program in Biology (2 cr)
STAFF Fall semester

BIO 8920 Research Prospectus (0 cr)
STAFF Fall semester

BIO 8940 Advanced Topics in Biology (2 cr)

BIO 8941 Advanced Topics in Biology Lab (2 cr)

BIO 9007 Directed Research I (2 cr) Pre-req: Consent of chairperson.

BIO 9008 Directed Research II (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.

BIO 9102 Graduate Biology Topics (2 cr) MS Students only with consent of Thesis committee

BIO 9103 Graduate Biology Topics (3 cr) MS Students only with consent of Thesis committee

BIO 9104 Graduate Biology Topics (4 cr) MS Students only with consent of Thesis committee

BIO 9303 BS/MS Graduate Thesis Direction (2 cr)
DR. IYENGAR Fall Semester

BIO 9304 BS/MS Graduate Thesis Direction (2 cr)
DR. IYENGAR Spring semester

BIO 9305 BS/MS Graduate Thesis Direction (3 cr)
DR. IYENGAR Fall semester

BIO 9306 BS/MS Graduate Thesis Direction (3 cr)
DR. IYENGAR Spring semester

BIO 9307 Thesis Research I (2 cr)

BIO 9308 Thesis Research II (3 cr)

BIO 9309 Thesis Research III (5 cr)

CHEMISTRY

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 with concentrations in the following areas: analytical chemistry, biochemistry, inorganic chemistry, materials chemistry, organic chemistry and physical chemistry. Students are eligible to be admitted as matriculated students if they have a bachelor's degree in chemistry or biochemistry. Students with a degree other than a B.S. or B.A. in chemistry or biochemistry will be considered for admission on an individual basis.

A minimum of 30 credits is required for the MS degree and students may choose a thesis or a non-thesis degree option. Full-time students are required to pursue the thesis option and take six graduate courses for a total of 18 credits. The remaining 12 credits will be covered by the research courses CHM 7807-7810. Two of the following core courses are required of full-time 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 will be permitted to pursue a non-thesis option and take 10 graduate courses, three of which are the core courses (see above). Seven additional courses will consist of elective graduate courses on topics of interest to the student and up to two of these additional courses can be additional core courses.

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

DEPARTMENTAL PROGRAM

All courses are 3 credits each unless otherwise noted.

- CHM 7100 Quantum Mechanics
- CHM 7200 Thermodynamics/ Statistical Mechanics
- CHM 7222 Organic Structure Analysis
- CHM 7292 Advanced Organic Chemistry
- CHM 7391 Advanced Inorganic Chemistry
- CHM 7440 Advanced Physical Chemistry
- CHM 7494 Advanced Physical Chemistry
- CHM 7517 Environmental Chemistry
- CHM 7595 Advanced Analytical Chemistry
- CHM 7693 Advanced Biochemistry
- CHM 7807, 7808, 7809—M.S. Research I, II and III
- CHM 7810—M.S. Thesis
- CHM 8229 Organic Reactions and Synthesis
- CHM 8313 Solid State and Materials Chemistry
- CHM 8314 Physical Methods in Chemistry
- CHM 8315 Organometallics
- CHM 8325 Introductory Polymer Chemistry
- CHM 8331 Bioinorganic Chemistry
- CHM 8410 X-Ray Crystallography
- CHM 8622 Metabolic Basis of Disease
- CHM 8641 Chemical and Biochemical Imaging
- CHM 8643 Toxicology
- CHM 8645 NMR Spectroscopy
- CHM 8663 Biochemical Parasitology
- CHM 8665 Enzymes
- CHM 8990 Graduate Chemistry Practicum (1 cr)
- CHM 9080—Thesis Continuation (0 cr)
- CHM 9221, 9222, 9223, 9224—Special Topics in Organic Chemistry I-IV
- CHM 9331, 9332—Special Topics in Inorganic Chemistry I-II
- CHM 9333 Chemistry and Industry
- CHM 9441, 9442, 9443—Special Topics in Physical Chemistry I-III
- CHM 9447 Computational Chemistry
- CHM 9551, 9552, 9553, 9554—Special Topics in Analytical Chemistry I-IV
- CHM 9661, 9662, 9663, 9664—Special Topics in Biochemistry I-IV

CLASSICAL STUDIES

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

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.

PROGRAM REQUIREMENTS

The M.A. in Classical Studies at Villanova University offers two possible tracks: (1) Greek/Latin or (2) Latin. Both tracks are available either on campus or online.

COURSE REQUIREMENTS:

Students must complete a total of 30 course credits (10 courses) for the degree and maintain a G.P.A. of at least 3.0. Students are required to take a literature survey course: LAT 7250 History of Latin Literature. Students in the Greek/Latin track must also take GRK 7250 History of Greek Literature. The remaining courses will be a combination of literature courses and courses on classical culture.

COMPREHENSIVE EXAMINATIONS:

Students must pass a classical language translation exam in Latin prose and poetry. Students in the Greek/Latin track must also pass a translation exam in Greek prose and poetry.

RESEARCH PORTFOLIO

Students will complete a research portfolio consisting of the following:

- (1) Latin literature survey paper
- (2) special topic paper

Students in the Greek/Latin track must also complete a Greek literature survey paper. The portfolio papers are based on papers written in conjunction with courses.

MODERN LANGUAGE TRANSLATION EXAM:

Students have the option of taking a translation exam of classical scholarship in French, German, or Italian.

FIVE YEAR B.A./M.A. PROGRAM

This five-year program allows exceptional students to complete a bachelor's and a master's degree in Classical Studies in five years. In the last year of undergraduate study students take three graduate courses (9 credits) that count toward both their undergraduate and graduate degree.

ANCIENT WORLDS CERTIFICATE

Students may elect to pursue a certificate in 'Ancient Worlds' through the Graduate Program in Liberal Studies by completing 3 additional Classics-related courses (9 cred-

its), including LST 7100 Foundation: Ancient.

COURSE OFFERINGS

Below is a sampling of our courses. Please visit our program website for a full listing.

Latin Courses

LAT 7150 Prose Composition
LAT 7250 History of Latin Literature
LAT 7270 Epigraphy/Paleography
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

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

Classical Studies Courses

CLA 7301 Archaeology: Greece
CLA 7301 Archaeology: Rome
CLA 7301 Archaeology: Pompeii & Herculaneum
CLA 7301 Greece & Rome in Art and Culture

For more information about the M.A. in Classical Studies, please contact Dr. Valentina DeNardis, Director of Classical Studies. (valentina.denardis@villanova.edu)

COMMUNICATION

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.

Master of Arts Program Requirements

Core Courses (Required). 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 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 (Electives). Upon completion of foundational coursework in the program, students engage focal courses in the discipline. To ensure adequate exposure to the multiple 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. Each elective course falls under one of these three areas.

Completion of a Preliminary Examination

All students matriculated in the M.A. in Communication program will complete a preliminary examination in The Communication Perspective one full semester after they have taken the COM 8100 course. This written take-home examination is required of all students regardless of capstone option, and a passing grade is required to continue in the program. Students may be invited to orally defend their written responses in order to demonstrate sufficient competency. Detailed guidelines are provided to students when they begin the program.

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 take-home comprehensive examination. The examination includes questions from two areas: Research Methods (either COM 8001 Qualitative Research Methods or COM 8002 Quantitative Research Methods) and an elective course in the student's area of specialization. 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 The Communication Perspective (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.

Graduate Studies

- 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.)
 - 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.
- Certain courses are offered in a variety of blended in-person and online formats. See Graduate Director or program website for current offerings.

Master of Arts Program Courses

Core Courses

COM 8008 - Orientation to Graduate Study
COM 8100 - The Communication Perspective
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

Graduate Studies

COM 8012 - Storytelling: Communication, Culture, Craft

COM 8013 - IGR Dialogue *

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

COM 8322 - Audience Analysis

* 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

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 the communication perspective 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: The Communication Perspective, 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 8012 - Storytelling: Communication, Culture, Craft
COM 8013 - IGR Dialogue *
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*

* 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 8012 - Storytelling: Communication, Culture, Craft
COM 8013 - IGR Dialogue *
COM 8101 - Performance Studies
COM 8102 - Persuasion & Advocacy
COM 8302 - Advertising
COM 8303 - Mass Media Industries

Graduate Studies

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 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
COM 8212 - Communication & Advocacy
COM 8302 - Advertising
COM 8303 - Mass Media Industries

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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 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

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 8012 - Storytelling: Communication, Culture, Craft
COM 8013 - IGR Dialogue *
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*

Graduate Studies

- 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
- 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 8012 - Storytelling: Communication, Culture, Craft
- COM 8013 - IGR Dialogue *
- 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*

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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

Certain courses are offered in a variety of blended in-person and online formats. See Graduate Director or program website for current offerings.

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

COMPUTING SCIENCES

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. The Graduate Certificate in Health Informatics is a specialized distance learning program to prepare students in the management, retrieval, and exchange of electronic health data; the use of electronic medical data systems; knowledge of health IT standards; privacy, safety, interoperability, and security issues in the healthcare industry.

PROGRAM REQUIREMENTS—COMPUTER SCIENCE

Students must successfully complete the five required courses and five electives. One elective 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.

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.

The electives for both programs are to be selected from the courses listed below. With permission, a required course from one program may be taken as an elective in the other program. 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. Recent special topics offerings include Computer Vision, Cyber Security, Cloud Computing, Game Design & Development, Health IT and eHealth Systems, Information Security, Internet of Things, Machine Learning, Project Management, Software Testing, Software Studio, and Web Technologies. 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. All required and elective courses are 3 credits each except CSC 8990, which is 1 credit. All continuation courses are 0 credits.

PROGRAM REQUIREMENTS- CERTIFICATE IN HEALTH INFORMATICS (CHI)

Students must complete five three credit courses, online. Credits can be transferred into a full masters program in Software Engineering.

TECHNICAL DEVELOPMENT CURRICULUM

The technical development Curriculum (TDC) is a legacy program 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 8301 Design and Analysis of Algorithms
CSC 8310 The Linguistics of Programming Languages
CSC 8400 Computer Systems
CSC 8510 Theory of Computability

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

ELECTIVE COURSES (MSCS/MSSE)

CSC 8410 Advanced Computer Systems
CSC 8450 Digital Forensics
CSC 8470 Computer Graphics
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 8550 Data Communication
CSC 8560 Computer Networks & Cyber Security
CSC 8570 User/System Interface Design
CSC 8580 Network Management and Performance
CSC 8590 Advanced Software Engineering
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 8991 Computing Practicum Continuation
CSC 9000 Guided Study

Graduate Studies

CSC 9010 Special Topics in Computer Science
CSC 9020 Independent Study
CSC 9021 Independent Study Continuation
CSC 9025 Grand Challenges of Computing
CSC 9030 Thesis
CSC 9080 Thesis Continuation

REQUIRED COURSES (CHI)

CSC8200 Health Informatics and eHealth Systems
CSC8210 Healthcare Safety, Security, Law and Ethics
CSC8220 Software Engineering and Health Informatics
CSC8230 Database Systems and Health Informatics
CSC9010 Special Topics in Health Informatics

BACKGROUND COURSES

CSC 7000 Algorithms and Programming
CSC 7100 Computer Systems
CSC 8100 Technology for Human Organizations

EDUCATION and COUNSELING

DEPARTMENTAL PROGRAMS

The Department of Education and Counseling offers two graduate degrees: the Master of Arts in Education and the Master of Science in Counseling. The Master of Arts in Education offers a concentration in Teacher Leadership. The Master of Science degree allows concentration in either school counseling or clinical mental health. The program for school counseling approved by the Pennsylvania Department of Education is offered at the graduate level, as is a program for initial teaching certification through the Master's Plus Teacher Certification program. Each program has a core of required courses, as well as specific admission requirements.

In addition, the Department offers post-graduate study with a 15 credit Graduate Certificate in Teacher Leadership program designed for the post-master's education professional who wants to expand his/her role as a lead teacher, department chair, etc., and post-graduate courses in Counseling, which permit the working counselor to move toward professional licensure as a counselor.

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 Master's 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-master's 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 or submit and present a digital portfolio. This may be taken following the completion of 24 credits.

2) Master of Arts plus Teacher Certification (34 Credits)

Degree Requirements: Those seeking admission in this track of the program should have an undergraduate major in an academic subject area and/or the necessary prerequisite coursework.

Graduate Studies

Some candidates may need additional coursework before entering the program. Subjects available for certification are: English, Communication, Mathematics, Biology, Physics, Chemistry, General Science, Social Studies, World Languages and Latin. Some candidates may need additional coursework before entering the program. The program consists of 34 credits, including workshops, observations in schools and a full time student teaching experience. The program is typically completed in 12 consecutive months, in one summer session and two semesters and exists for prospective secondary teachers, grades 7-12 only. It is also possible to complete the program on a part time basis over two years.

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
- 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 with signature assignments to be included in the digital portfolio. Students not submitting a portfolio must complete these courses prior to taking the comprehensive exam.

Graduate Studies

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 FOUR (34) CREDITS REQUIRED FOR DEGREE:

- EDU 8400 Critical Perspectives in Special Education (3 credits)
- EDU 8530 or 8540 or 8550 Methods of Teaching Content (3)
- EDU 8603 Educational Research (3)
- EDU 8614 Curriculum and Assessment (3)
- EDU 8618 Adolescent Psychology (3)
- EDU 8671 History of American Education (3)
- EDU 8673 Philosophy of Education (3)
- EDU 8675 development of the english Language Learner (3)
- EDU 8678 multiculturalism, gender, and Inclusion in schools(3)
- EDU 8628 graduate student teaching (6)
- EDU 7321 Graduate Student Teaching Seminar (1)

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.

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 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 Electives (6 credits)

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 8675 Development of ELL Students

Post-Baccalaureate Graduate Certificate in Education

Fifteen (15) Credits Required for Certificate

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.

ENGLISH

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.

To earn the Master's degree, you will complete 30 credits, including a thesis or an oral/written field examination. The only two formal requirements are a course in American literature before 1900 and another in British literature before 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.

DEPARTMENTAL PROGRAM

British/Irish Literature

- ENG 8102 Old English Language and Literature
- ENG 8104 Middle English Language and Literature
- ENG 8106 Topics in Medieval Literature
- ENG 8150 Chaucer's Canterbury Tales
- ENG 8151 Chaucer's Troilus and Criseyde and Minor Poems
- ENG 8250 Shakespeare's Early Plays
- ENG 8251 Shakespeare's Later Plays
- ENG 8260 Topics in Renaissance Literature
- ENG 8310 Seventeenth Century Poetry and Prose
- ENG 8350 Milton
- ENG 8420 Eighteenth Century Fiction
- ENG 8430 English Drama, 1660-1780
- ENG 8450 The Age of Neo-Classicism
- ENG 8460 Topics in Eighteenth Century British Literature
- ENG 8501 The Age of Romanticism
- ENG 8505 Victorian Prose
- ENG 8506 Victorian Poetry
- ENG 8520 Nineteenth-Century Fiction
- ENG 8560 Topics in Nineteenth Century British Literature
- ENG 8610 Modern British Poetry
- ENG 8620 Modern British Fiction
- ENG 8630 Modern British Drama
- ENG 8640 Topics in Modern British Literature

American Literature

- ENG 7055 African-American Literature
- ENG 9510 American Poetry to 1990
- ENG 9520 American Fiction to 1900
- ENG 9530 Topics: Nineteenth Century American Literature
- ENG 9540 Topics in Modern American Literature
- ENG 9610 American Poetry: 1900-1950
- ENG 9620 American Fiction: 1900-1950
- ENG 9640 Topics: Modern American Literature
- ENG 9710 American Poetry: 1950 to Present
- ENG 9720 American Fiction: 1950 to Present
- ENG 9730 Open Seminar

Other

- ENG 7200 History of the English Language
- ENG 8000 Critical Theory
- ENG 8010 Seminar: Research and Bibliography
- ENG 8020 Composition and Literacy Studies
- ENG 8081 Seminar: Methods of Teaching Composition

Graduate Studies

ENG 8090 Thesis Direction I

ENG 8092 Field Exam

ENG 9031 Independent Study

ENG 9035 Professional Research Option

ENG 9080 Thesis Continuation

ENG 9800 Internship in the Teaching of English

ENVIRONMENTAL SCIENCE

The Master of Science in Environmental Science (MSES) is a 30-credit degree program. All students enroll in 10 credits of required foundation courses. The remaining credits are dependent on whether you pursue the research and thesis track or choose the non-thesis capstone project track. ***In cooperation with the Program Director and your faculty mentor(s), you develop and customize your academic program.***

All students take **10 credits** of required foundation courses:

GEV 7000: Research Methods in the Environmental Sciences (2 credits) *Analytical and research techniques for environmental scientists.*

GEV 7010: Environmental Colloquium (1 credit) *Attendance at departmental seminars and student presentations.*

GEV 7020: Advanced Environmental Issues Seminar (3 credits) *Discussion and debate of current environmental issues.*

GEV 7041: GIS for Environmental Systems (4 credits) *Application of geotechnical skills to address environmental issues.*

Note: GEV 7040 (Intro to GIS) is required for students without prior GIS experience as a pre-requisite for GEV 7041. If a student must take GEV 7040, that counts towards their free electives.

RESEARCH and THESIS TRACK

In addition to the 10 credits of required foundation courses, students on the **Research and Thesis Track** must take GEV 7030 and GEV 9040. Additionally, they take at least 5 credits of thesis work, but no more than 10 additional credits, depending on the research plan they work out with their advisor.

Thesis courses include: GEV 9000, 9001, 9010, 9020, or 9030.

GEV 7030: Proposal Development (1 credit)

GEV 9040: Thesis Writing (1 credit)

GEV 9000: Directed Research (2 credits) *For students who need an introductory research course prior to their Thesis Advisory Committee.*

GEV 9001: Thesis Continuation (0 credits)

GEV 9010: Thesis Research I (2 credits)

GEV 9020: Thesis Research II (3 credits)

GEV 9030: Thesis Research III (5 credits)

NON-THESIS CAPSTONE TRACK

In addition to the 10 credits of foundation courses, students selecting the **Non-Thesis Capstone Track** will work with the MSES Director to develop a program of study that complements their career goals. You will complete a capstone project in your final semester, which you will then publically present at the Department's Environmental Colloquium.

The following courses are required for the non-thesis capstone track and will help you develop your project:

GEV 9000: Directed Research (2 credits)

GEV 9005: Capstone Project (1 credit)

ELECTIVES

Students enrolled in the **Research and Thesis Track** take between **8 and 13** credits of elective courses, dependent upon their research plans.

Students enrolled in the **Non-Thesis Capstone Track** take **17** credits of elective courses, at least **8** credits of which must come from laboratory courses. Up to nine credits may be taken from departments other than GEV.

GEV Elective Lecture Courses (3 credits)

GEV 7100 Remote Sensing for Environmental Analysis

GEV 7101 Land Use and Environmental Assessment

GEV 7102 Sustainable Environmental Systems

GEV 7103 Environmental Policy and Law

GEV 7104 Coastal Environments

GEV 7105 Sustainable Urban Systems

GEV 7106 Ecosystems Services

GEV 7107 Advanced Environmental Geology

GEV 7108 Climate Variability

GEV 7109 Paleoclimates

GEV 7110 Sustainable Development

GEV 7111 Agricultural Sciences

GEV 7112 Environmental Health

GEV 7113 Soil Science

GEV 7114 Air Pollution

GEV 7115 Energy Systems

GEV 7116 Coral Reefs

GEV 7117 Water Resources

GEV 7118 Energy Policy

GEV 7119 Oceanography

GEV 7120 Geology

GEV 7121 Global Change Science

GEV 7122 Ecosystem Ecology

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GEV 7123 Green Science
GEV 7124 Biomimicry
GEV 7125 Tropical Ecology
GEV 7126 Process Geomorphology
GEV 7127 Environmental Systems
GEV 7128 Environmental Systems Management
GEV 7129 Environmental Toxicology
GEV 7200 Advanced Quantitative Analysis
GEV 7201 Spatial Analysis of Environmental Systems
GEV 7202 Geo Statistics
GEV 7203 Environmental Modeling with GIS and Remote Sensing
GEV 7204 Geospatial Project Management

GEV Elective Lab Science Courses (4 credits)

GEV 7040 Intro to GIS*
GEV 8310 Advanced Topics in Environmental Lab Science I
GEV 8320 Advanced Topics in Environmental Lab Science II
GEV 8321 Microbial Processes
GEV 8322 Ocean and Coastal Environments
GEV 8323 Watershed Biogeochemistry
GEV 8324 Environmental Systems
GEV 8325 Environmental Ecology
GEV 8326 Environmental Geology
GEV 8327 Geomorphological Environments
GEV 8328 Climatology
GEV 8329 Global Change Research
GEV 8330 Field Methods for Environmental Science
GEV 8331 Field Research
GEV 8332 Sustainable Environmental Systems
GEV 8333 Water and Waste Water Management
GEV 8334 Biogeochemistry
GEV 8335 Hydrology and Water Resources
GEV 8336 Aquatic Environmental Ecology
GEV 8337 Terrestrial Environmental Ecology
GEV 8338 Environmental Chemistry

*Required for students without prior GIS experience as a pre-requisite for GEV 7041

ELECTIVES IN OTHER DEPARTMENTS

Chemistry Courses (3 credits)

CHM 7515 Environmental Chemistry
CHM 7595 Advanced Analytical Chemistry
CHM 7515 Advanced Biochemistry
CHM 8643 Toxicology

Graduate Studies

Biology Courses

- BIO 7105 Vertebrate Ecology (4 credits)
- BIO 7151 Biogeochemistry Lecture (2 credits)
- BIO 7152 Biogeochemistry Lab (2 credits)
- BIO 7805 Biostatistics and Experimental Design (4 credits)
- BIO 7555 Molecular Ecology and Evolution (4 credits)
- BIO 7705 Plant Ecology (4 credits)
- BIO 7755 Plant Ecophysiology (4 credits)
- BIO 7955 Biodiversity and Systematics (4 credits)
- BIO 7970 Special Topics in Ecology, Evolution, and Organismal Biology (2 credits)
- BIO 7980 Advanced Topics in Ecology, Evolution, and Organismal Biology (3 credits)
- BIO 7980 Advanced Topics (Molecular Ecology) (3 credits)
- BIO 7980 Advanced Topics (Behavioral Ecology) (3 credits)
- BIO 7980/7982 Advanced Topics (Global Change Ecology, lecture / lab) (4 credits)
- BIO 8940/8941 Advanced Topics (Tropical Field Ecology, lecture / lab) (4 credits)

Public Administration Courses (3 credits unless otherwise noted)

- MPA 8100 Decision-Making
- MPA 8300 Leadership Ethics
- MPA 8400 Strategic Planning
- MPA 8500 Effective City Management
- MPA 8550 Urban Politics
- MPA 8600 Effective Nonprofit Management
- MPA 8800 Managing Public Networks
- MPA 8900 Public Policy
- MPA 8299 Special Topics in Public Administration (1 credit; suggested topics: land use and zoning, economic development strategies, program evaluation, performance measurement)

HISPANIC STUDIES

The graduate program in Hispanic studies offers an **MA degree and a graduate certificate in Hispanic Studies**.

The program offers courses in the literature and cultural studies of Latin America and Spain, courses on Spanish language teaching methodology, and literary and cultural theories. Students are expected to familiarize themselves with primary texts, as well as the pertinent criticism and theories. The MA degree requires 30 credits (any 10 courses) and the certificate requires 15 credits (any 5 courses).

Upon completion of the coursework, with a minimum 3.0 average students will take the Master's exam, based on three areas of reading lists which they develop working closely with 3 professors. The exam has written and oral parts.

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 apply to earn an MA in Hispanic Studies 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 in the major 3.5 and 15 SPA credits above the intermediate level completed by the end of the Junior year.

Graduate courses:

- SPA 7400 New Approaches to Teaching Spanish Language
- SPA 7401 New Approaches to Teaching Hispanic Literature
- SPA 7410 Latin American Poetry
- SPA 7420 Literary and Cultural Theories
- SPA 7430 Masterpieces of Hispanic Literature
- SPA 7440 Special Topics
- SPA 7450 Cultural Authority in Early Modern Spain
- SPA 7451 Cervantine Spain
- SPA 7457 Baroque Social Order
- SPA 7470 Poetics in Early Modern Spain
- SPA 7491 Contemporary Spanish Stage
- SPA 7492 Readings Spanish Modernism
- SPA 7493 Contemporary Peninsular Poetry
- SPA 7494 Politics of Space in Medieval Spain
- SPA 7502 Spanish Applied Linguistics
- SPA 8510 The Dream of Reason: The Romantic Period Revisited
- SPA 8540 The Idea of Nature in the Middle Ages
- SPA 8580 Religion and Politics in Medieval Literature
- SPA 8597 Latin American Crime Fiction
- SPA 8598 Discursos de la memoria
- SPA 8599 Postmodernity & Spanish Novel

Graduate Studies

- SPA 9556 Spanish Sociolinguistics
- SPA 9570 Transnational Migration Narratives
- SPA 9575 Hispanic Cultural Studies
- SPA 9580 Post/Colonial Text: Dialogues
- SPA 9582 Postmodern Fiction in Latin America
- SPA 9584 Short Story of the Americas

HISTORY

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.

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

Students must take at least 12 credits in their concentration. In addition, all students are required to take Theory and Methods, preferably in their first semester, 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 exami-

nation on their concentration and two-hour examination based upon a list of questions that all students are given at the beginning of their course work. Students are required to maintain a portfolio that includes best examples of course work. The graduate committee reviews portfolios in preparation for the comprehensive exam.

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:

- Theory and Methods in History 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

Graduate Studies

- HIS 8002 - Sem in North Amer Hist
- HIS 8003 - Amer Women & Gender His
- HIS 8011 - Colonial North America
- HIS 8016 - Revolutionary America
- HIS 8021 - Early American Republic
- HIS 8026 - U.S. Civil War
- HIS 8033 - The Gilded Age, 1865-1900
- HIS 8041 - Roosevelt to Roosevelt
- HIS 8042 - U S since the New Deal
- HIS 8061 - Amer For Rel to 1914
- HIS 8062 - Foreign Relations Since 1914
- HIS 8066 - American Cultural History
- HIS 8071 - Top:Early Amer Soc Hist
- HIS 8072 - Reconstruction
- HIS 8076 - Topics: Amer Econ Hist
- HIS 8078 - Topics in African-American History During Slavery
- HIS 8078 - Top in Af-Am Hist since 1865
- HIS 8081 - Readings in Amer Ethnic His
- HIS 8202 - Seminar Topics Euro History
- HIS 8204 - Sem Topics in Ancient History
- HIS 8205 - Ancient Mediterranean
- HIS 8206 - Dark Ages
- HIS 8207 - Wm & Gender in Europe 400-1650
- HIS 8208 - Medieval Europe
- HIS 8209 - The Renaissance
- HIS 8211 - Ref & Cath Counter Reformation
- HIS 8225 - The Enlightenment
- HIS 8231 - French Rev and Napoleonic Era
- HIS 8235 - British Economy and Society, 1689-1815
- HIS 8241 - Eur Natlsm 1815-1870
- HIS 8245 - Great Britain since 1815
- HIS 8248 - 19th Century Ireland
- HIS 8252 - Modern France since 1815
- HIS 8262 - Imperial Russia to 1917
- HIS 8272 - Europe on the Eve of WWI
- HIS 8274 - Twentieth Century Europe
- HIS 8275 - European Imperialism
- HIS 8279 - Germany since 1945
- HIS 8281 - Russia and the USSR in the 20th Century
- HIS 8290 - Women & Gender in Mod Europe
- HIS 8292 - Eur Intell His since 1850
- HIS 8402 - Sem Topics in World History
- HIS 8410 - Atlantic World 1500-1800
- HIS 8412 - Colonial Latin America
- HIS 8414 - Topics Latin Amer Hist.

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- HIS 8416 - Modern Latin America
- HIS 8421 - China & Japan since WWII
- HIS 8423 - Women and Gender in Middle East
- HIS 8425 - Modern Japan
- HIS 8426 – Modern China
- HIS 8433 - Imperial. & Natlism in MidEast
- HIS 8436 - Women & Gender in Middle East
- HIS 8441 - Africa and the Emergence from Colonialism
- HIS 8452 - History of Modern South Asia
- HIS 8454 - Empire & Decolonization
- HIS 8602 - Sem Top in Comparative History
- HIS 8603 - Topics in the His of Rev
- HIS 8613 - Topics in Gender & Women's His
- HIS 8642 - Top in His of Science & Tech
- HIS 8648 - Environmental History
- HIS 8662 - Impact of War on Society
- HIS 8682 - The Cold War as History
- HIS 8702 - Intro to Public History
- HIS 8704 - Material Culture
- HIS 8800 - Topics in Historiography
- HIS 8802 - Seminar in Amer Historiography
- HIS 8804 - Seminar in Eur Historiography
- HIS 8806 - Historiography of Gender
- HIS 8850 - Theory and Methods
- HIS 8900 - Introduction to Digital History
- HIS 9006 - Grad Internship in Public History
- HIS 9012 - Directed Readings in History
- HIS 9022 - Thesis Direction I
- HIS 9032 - Thesis Direction II
- HIS 9042 - Internship in Teach of History
- HIS 9080 - Thesis Continuation

HUMAN RESOURCE DEVELOPMENT

PROGRAM DESCRIPTION

Human Resource Development (HRD) is a comprehensive program that develops HR leaders through evidence-based education and applied experiences in functional and strategic human resource management. The program is designed to provide students with a fundamental understanding of critical concepts pertaining to the field of Human Resources, aligned with the body of knowledge and competencies identified by the major professional HR associations. Professionals in the field teach selected courses thereby adding value and realism to the program. The classes are enriched through the student composition of professionals with years of HR and business experience and individuals launching their HR careers as recent undergraduates and those seeking to transition from other careers or as they return to work. Graduates of the program not only expand their general professional knowledge in HR, but also acquire new and specific skills in strategic planning, analytics and research methods for application in increasingly dynamic organizational environments. Our graduates become global HR thought leaders driving high performing, inclusive organizations that provide meaningful work experiences.

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 the HRD program in the list of all online 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 or business, though applicants from other disciplines will be given serious consideration. While applicants' qualifications will be considered in their entirety, in general, applicants should have a 3.0 or higher undergraduate GPA. All applicants must complete a writing assessment. While not required, applicants may submit evidence of their ability to handle graduate-level work such as GRE's, GMAT's, prior graduate studies, relevant certifications, etc.

In addition to university supported graduate assistantships and tuition scholarships, there are two endowed fellowships available to support a graduate student enrolled on a full-time basis in the HRD program. Applicants are invited to apply for the Rohm & Haas Company James C. Tabb Fellowship and the David F. Bush 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. The program requires 36 semester hours. Students with prior HR and research and writing experience may seek waivers of two prerequisite classes prior to matriculating, thereby making the program of study 30 semester hours. Students should plan their program of studies with their advisor before registering for any course work, and are required to consult with their advisor each semester for advice and guidance.

The final requirement for the degree is the completion and passing of a capstone experience. The capstone can be satisfied by passing a comprehensive test, completing an experiential project, or completing a thesis project. HRD's comprehensive test option includes passing HRD's comprehensive exam, passing a professional certification examination in Human Resources, such as the PHR/SPHR/GPHR or the SHRM-CP/SHRM-SCP, or another HR professional certification that has prior approval from HRD. The experiential project option can be fulfilled through an intensive HR professional internship or by completing an HR work project. Under this option, the student is expected to produce a comprehensive paper as the final work product. The final capstone option is for the student to complete a thesis after completing the research methods electives. Contact the HRD office and/or your advisor for additional information.

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

Special Notes: There are four (4) Psychology courses offered as part of the HRD curriculum. Two of these are required courses - PSY8475 and PSY8875. Applicants with more than 1 year of professional HR experience may seek and be approved for a waiver of HRD8101. Applicants with prior graduate/research writing experience and who demonstrate adequate writing skill in the writing assessment may seek and be approved for a waiver of HRD8102.

REQUIRED COURSES

HRD 8003 Financial and Human Capital

HRD 8006 HR Analytics

HRD 8101 Introduction to HR in the Business World*

HRD 8102 Critical Evaluation and Research Writing*

HRD 8210 Strategic Workforce Planning

HRD 8215 Employment Law

HRD 8419 Foundations of Strategic Human Resources

PSY 8475 Training and Development

PSY 8875 Organizational Development

*May be waived if specific criteria are met at time of admission. See Special Notes above.

ELECTIVES

HRD 8008 Quantitative and Qualitative Research Methods (6 credits)

HRD 8012 Individual Research in Human Resource Development (3 credits)

HRD 8212 Total Rewards: Compensation (3 credits)

HRD 8213 Total Rewards: Benefits (3 credits)

HRD 8214 HR Technology (3 credits)

HRD 8319 Intro to Human Resources (3 credits)

HRD 8420 Strategic and Global HR Leadership (3 credits)

HRD 8421 Diversity in a Global Economy (3 credits)

PSY 8425 Organizational Behavior (3 credits)

HRD 8499 Special Issues in HRD (3 credits)

Graduate Studies

The courses below are all electives of either 1 or 1.5 credits. The offerings vary by semester. Please check the master catalog for the courses given (and associated credits) for the current semester.

HRD 8301 Work/Life Balance
HRD 8302 International HR
HRD 8309 Project Management
HRD 8314 Stress Management
HRD 8320 Consulting in HR
HRD 8330 Human Resource Ethics
HRD 8331 Conducting HR audits
HRD 8333 Executive Coaching
HRD 8339 Performance Management
HRD 8345 Relational Capital
HRD 8346 Managing Strengths
HRD 8899 Special Topics 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.

HRD 8301 Work/Life Balance
HRD 8302 International HR
HRD 8306 Competency Assessment
HRD 8309 Project Management
HRD 8314 Stress Management
HRD 8320 Consulting in HR
HRD 8321 Corporate Ethics
HRD 8328 Finding Talent
HRD 8331 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 Feedback
HRD 8345 Relational Capital
HRD 8346 Managing Strengths
HRD 8347 HR Innovation
HRD 8899 Special Topics in HRD

LIBERAL STUDIES

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.

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.

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.

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

DEPARTMENTAL PROGRAMS

The Department of Mathematics and Statistics offers two Master's 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 Master's 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.

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
MAT 8705 Topics in Topology
MAT 8740 Applied Mathematics I
MAT 8745 Applied Mathematics II

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. 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.

Degree Requirements

Students must successfully complete ten courses (30 credits), maintain at least a 3.00 Grade Point Average (GPA) and pass a 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
MAT 7500 Statistical Programming
MAT 8400 Statistical Theory I
MAT 8401 Statistical Theory II
MAT 8406 Regression Methods
MAT 8412 Linear Statistical Models

Scheduling Courses

Students in the MSAS program must complete MAT 7404 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 8401 and MAT 8406 in the spring semester. These courses are generally followed by MAT 8412 and MAT 7500 in the next academic year. Modifications to this schedule may be made by the Director of the Applied Statistics Graduate Program.

Elective Courses*

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.*

MSAS Comprehensive Examination

Beginning in Fall 2015, there will be two versions of the comprehensive exam, referred to as the "old" and "new" version. Students who enrolled in the APS Graduate Program prior to Fall 2015 may choose either version. Students entering the APS Graduate Program in Fall 2015 or thereafter, may only take the "new" version of the comprehensive exam. To take the comprehensive exam, students must; (1) have a GPA of at least 3.00, (2) have completed at least 21 credits in the program, and (3) have completed the six required courses or have completed five and currently enrolled in the sixth course. At the time of the application to take the comprehensive exam, the applicant must specify which of these two versions the applicant has chosen.

The "old" version is three hours long and consists of three separate parts.

One part consists of one hour for Statistical Methods.

One part consists of one hour for Statistical Theory I and II.

One part consists of one hour for Regression-Linear Models.

All parts are to be taken on the specific day in a given semester. Each of these three parts are graded separately. In the event of a failure, one re-examination will be permitted for parts not passed.

The "new" version is three hours long and consists of one exam (no parts).

The exam covers Statistical Methods, Regression and Linear Models.

The exam is graded as a whole. In the event of a failure, one re-examination will be permitted for this exam.

Graduate Studies

Students who have not passed all three parts of the "old" version, may choose to take one re-examination of the part they did not pass. Alternatively, they choose to take the "new" version. This option applies regardless of the part(s) they did not pass. Students who did not pass the "new" version may not subsequently choose to take the "old" version.

GRADUATE CERTIFICATE IN APPLIED STATISTICS

The 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 (15 credits), approved by the Director of the Applied Statistics Graduate Program, and maintain at least a 3.00 Grade Point Average. Admission course requirements are the same for the MSAS, but the GRE requirement is waived.

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 Department is committed to pluralism in teaching and research that expands the diversity of philosophy.

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 who entered the program prior to August 2016 must pass examinations in two languages other than English related to their research. Students who entered the Program in August 2016 or thereafter must pass an examination in one natural language other than English related to their research.

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/academic-programs/doctorate/curent/compexam.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 their 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 coursework within a four-year time period. By the end of their sixth year in the program, students must have defended their dissertation proposal. Students must complete their degree within an 8 year time period. Up to an additional 2 years may be permitted by request. This extension request would be considered by the graduate dean after receiving recommendations from the graduate director. The graduate director will consult with the dissertation committee and the graduate faculty in order to make a recommendation to the Dean.

Graduate Studies

Full details on course requirements, comprehensive examinations, language and preliminary examinations, and the dissertation are available from the Director of Graduate Studies.

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 (3 cr)**
- PHI 7110 The Philosophy of Socrates (3 cr)**
- PHI 7120 Plato: Middle Dialogues (3 cr)**
- PHI 7130 Plato: Later Dialogues (3 cr)**
- PHI 7220 Aristotle: Theoretical Philosophy (3 cr)**
- PHI 7230 Aristotle: Practical Philosophy (3 cr)**
- PHI 7300 Roman Philosophy**
- PHI 7330 Medieval Philosophy (3 cr)**
- PHI 7340 Topics in the History of Philosophy (3 cr)**
- PHI 7410 Augustine's Speculative Philosophy (3 cr)**
- PHI 7420 Augustine's Practical Philosophy (3 cr)**
- PHI 7510 Aquinas: Metaphysics (3 cr)**
- PHI 7520 Ethics of Law (3 cr)**
- PHI 7610 Topics in Early Modern Philosophy (3 cr)**
- PHI 7640 Spinoza**
- PHI 7710 Kant's First Critique (3 cr)**
- PHI 7720 Kant's Practical Philosophy (3 cr)**
- PHI 7730 Kant's Third Critique (3 cr)**
- PHI 7810 From Romanticism to Idealism (3 cr)**
- PHI 7910 Hegel's Phenomenology of Spirit (3 cr)**
- PHI 7920 Hegel's Logic (3 cr)**
- PHI 7930 Hegel's Philosophy of Right (3 cr)**
- PHI 8020 Marx (3 cr)**
- PHI 8070 Nietzsche (3 cr)**
- PHI 8090 American Philosophy (3 cr)**
- PHI 8110 Contemporary Analytical Philosophy (3 cr)**
- PHI 8120 Wittgenstein (3 cr)**
- PHI 8210 Husserl**

PHI 8220 Heidegger's Being and Time (3 cr)

PHI 8230 Sartre (3 cr)

PHI 8250 Merleau-Ponty (3 cr)

PHI 8260 Gadamer (3 cr)

PHI 8280 Arendt (3 cr)

PHI 8310 Levinas (3 cr)

PHI 8340 Derrida (3 cr)

PHI 8350 Foucault (3 cr)

PHI 8420 Healthcare Ethics (3 cr)

PHI 8430 Concepts of Health and Disease (3 cr)

PHI 8510 Political Philosophy (3 cr)

PHI 8520 Liberalism and its Critics (3 cr)

PHI 8530 Critical Theory in the Frankfurt School (3 cr)

PHI 8540 Feminist Theories (3 cr)

PHI 8550 Body Politics (3 cr)

PHI 8560 Philosophy of Language (3 cr)

PHI 8610 Topics in Postmodernism (3 cr)

PHI 8630 Philosophy of the Image (3 cr)

PHI 8640 Philosophy of Contemporary Music (3 cr)

PHI 8710 Seminar in Philosophical Topics (3 cr)

PHI 8720 Seminar in Philosophical Figures (3 cr)

PHI 8815 Contemporary Hermeneutics

PHI 8830, 8835 Independent Study I, II (3 cr)

PHI 8870, 8875 Consortium I, II (3 cr each)

PHI 8885 Critical Theory Workshop

PHI 8920, 8930 Teaching Practicum I, II (1 cr each) Permission of the instructor is required.

PHI 9010 – 001 Dissertation (0 cr)

PHI 9081 – 001 Dissertation Continuation (0 cr)

Prerequisite: *PHI 9010*

POLITICAL SCIENCE

DEPARTMENTAL REQUIREMENTS

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 complete ten courses or complete eight courses and write a thesis. All students must take a written, qualifying exam during the semester in which they are completing their fifth course. Students completing the ten courses also have to take a written comprehensive capstone exam prior to the conclusion of their studies. Students writing a thesis do not have to take the comprehensive capstone exam.

The qualifying and comprehensive exams consist of four pools of questions (General, American Government, Comparative Politics, and International Relations). Students have to answer two questions. The first question must be drawn from the pool of general questions. The second question must be drawn any of the other three pools. Students cannot answer the same questions on the comprehensive capstone exam as they did on the earlier qualifying exam, or if they fail an exam and have to retake it.

Each answer should be roughly ten typewritten pages with one-inch margins. The questions are available at the beginning of the academic year. The exams are written at home. Exams are administered twice annually and should be handed in by the Friday following fall or spring break. The retake exams are due on the Friday of last week of classes. (Reading Day)

Answers will be graded according to the student's ability to demonstrate mastery of substantive material and integrate concepts learned in their classes. Students are expected to cite specific material covered in classes. Three grades are possible: "exceeding expectations", "meeting expectations" and "not meeting expectations". Students who fail the exam must retake it. Failure to pass a second qualifying exam will result in dismissal from the program. Failure to pass second comprehensive capstone exam will lead to denial of the degree.

You may earn a certificate in either "American Politics or International Politics" by satisfactorily completing five graduate courses in one of those two areas. Students applying for the certificate 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 course work. A student may be accepted into the certificate program on non-matriculated status without the GRE or previous graduate level course work, 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

General Courses:

- 7000 Research Concepts & Approaches
- 7175 Topics in American Government
- 7275 Topics in International Relations
- 7375 Topics in Comparative Politics

American Government:

- 8110 U.S. Congress
- 8120 U.S. Presidency
- 8130 U.S. Constitutional Interpretation
- 8140 Race and Ethnicity
- 8160 Political Communication
- 8165 Cyberpolitics
- 8170 Public Opinion
- 8180 National Security Policy
- 8185 US Intelligence
- 8190 American Party Politics

International Relations:

- 8210 Globalization
- 8220 International Law
- 8230 International Organization
- 8255 Genocide and Mass Killing
- 8260 International Security
- 8265 Global Inequality
- 8270 International Political Economy

Comparative Politics:

- 8305 Democratization
- 8310 Comparative Political Economy
- 8315 Comparative Civil Liberties
- 8320 Russian Politics
- 8330 African Politics
- 8340 Middle East Politics
- 8360 Latin American Politics
- 8370 Third World Politics
- 8380 European Politics

Graduate Studies

PSC 9078 Thesis Development Seminar

PSC 9079 Thesis Continuation

Theory and Methodology

PSC 8440 Religion and Politics

PSC 8455 The American Founding

PSC 8450 The Lincoln/Douglas Debates

PSYCHOLOGY

DEPARTMENTAL REQUIREMENTS

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.

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 a course other than a program elective listed below, 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
- PSY 9080 Thesis Continuation Must be taken subsequent to completion of PSY 9033 if thesis is not completed. (0 cr)

Graduate Studies

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

PUBLIC ADMINISTRATION

PROGRAM DESCRIPTION

The mission of the Master of Public Administration (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 public service. This program is offered either on-campus or online. The description below primarily describes the campus-based program. For information regarding 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, applied research methods, leadership ethics, 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 attain a personalized graduate degree in public administration.

The MPA requires at least three years of relevant work experience. Students starting the program without such experience must complete a three-credit internship (MPA 8010). Students work with the MPA Director to arrange internships. Students with relevant work 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 take 39 credits for the degree. Students must work 300 hours in their internship, submit five memos to the MPA Director throughout the duration of the semester, and write a concluding paper to earn three credits.

Students also must pass a written comprehensive examination to complete the degree. The comprehensive exam serves as a capstone experience in the MPA program. It is designed to provide students with the opportunity to integrate and to apply the knowledge they have gained through their coursework in the program. In order to pass the exam, students are expected to apply ideas (i.e., theories, concepts, practices, and examples) learned in the MPA program accurately and offer a reasonable argument defending their responses to exam questions.

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, Theater, History, or Theology may want to earn certificates in public administration, city management, or nonprofit management 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 MPA 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)

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 Strategy (1 credit)
MPA 8299	Topic: Debt Management (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 MPA program, or (3) as a post-Master's certificate. The Certificate is a 15-credit program.

Villanova University

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	Special Topics in Public Administration (3 credits)
MPA 8200	Administrative Communication (3 credits)
MPA 8400	Strategic Planning (3 credits)
MPA 8800	Managing Public Networks (3 credits)
MPA 8900	Public Policy (3 credits)
MPA 8299	Topic: Land-Use and Zoning (1 credit)
MPA 8299	Topic: Economic Development Strategy (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: Leading Social Innovation (1 credit)
MPA 8299	Topic: Marketing in the Cultural Sector
MPA 8299	Topic: Performance Measurement

In addition to the above electives, students may select one of the following Political Science courses, if offered:

PSC 8310: Comparative Political Economy

PSC 9050: International Organizations

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. Applicants must take the LSAT exam and include their LSAT score report in their application to the MPA program. 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.

Graduate Studies

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 CLAS 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 in the JD-MPA joint degree program must complete the six required MPA courses.

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 8051 Applied Data Analysis	(3 credits)
MPA 8300 Leadership Ethics	(3 credits)

Elective Courses (18 credits)

MPA 8100 Decision-Making	(3 credits)
MPA 8200 Administrative Communication	(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)

THEATRE

DEPARTMENTAL PROGRAMS

The M.A. in Theatre combines rigorous courses in academic and practical theater. The core curriculum includes courses in the history of theater and production, theory, criticism, and analysis of dramatic literature. Laboratory courses include studies in acting, design, play writing and directing. Courses provide expertise in research and writing, as well as in production and performance. The degree culminates in a thesis project which specializes in the particular interest of the student including research and artistic projects. The academic and practical knowledge of the theater, achieved in the degree, provides the crucial tools for the development of professional theater practitioners, educators or scholars.

Graduation

Students will need a total of 36 credits to complete the Master's in Theatre program. Students will need a total of 39 credits to complete the Master's in Theatre degree with a certificate in Nonprofit Management (27 credits in Theatre, 12 credits in Nonprofit Management). Additional graduation requirements include a Dramaturgy comprehensive in the first year and the completion of a thesis project in the second year. A possible curriculum for the comprehensive program is as follows:

FALL	SPRING
1st Year - Dramaturgy (Classic)	Dramaturgy (Modern)
Script Analysis	Scenography
Acting	Characterization OR Sound & Movement
2nd Year - Vision & Form (Classic)	Vision & Form (Modern)
Directing	Styles
Playwriting	Modern Irish Drama

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.

All courses listed are 3-credits each unless otherwise noted.

CORE COURSES

- THE 7100 Principles of Acting (3 cr)**
- THE 7110 Script Analysis (3 cr)**
- THE 7120 Dramaturgy Tradition (Classic) (3 cr)**
- THE 7130 Dramaturgy Tradition (Modern) (3 cr)**
- THE 7140 Dramatic Vision & Form (Classic) (3 cr)**
- THE 7150 Dramatic Vision & Form (Modern)(3 cr)**

ELECTIVE COURSES

- THE 7200, 7210, 7220 Theatre Production Practicum (0 cr)**
- THE 8110 Voice and Movement (3 cr)**
- THE 8120 Characterization (3 cr)**
- THE 8130 Solo Performance**
- THE 8140 The Musical Theatre (3 cr)**
- THE 8160 Scenography (3 cr)**
- THE 8170 Directing (3 cr)** *Pre-req: THE 8000 or permission of instructor.*
- THE 8180 Directing Styles (3 cr)** *Pre-reqs: THE 7100, THE 8170.*
- THE 8190 Playwriting (3 cr)**
- THE 8200 Theatre Topics (3 cr)**
- THE 9110 Dramaturgy (3 cr)**
- THE 9200 Special Studies—Production**
- THE 9210 Special Studies—Research**
- THE 9220 Special Studies—Voice and Movement**
- THE 9230 Special Studies—Acting**
- THE 9260 Special Studies—Scenography**
- THE 9270 Special Studies—Directing**
- THE 9280 Special Studies—Playwriting**

THEOLOGY

DOCTOR OF PHILOSOPHY IN THEOLOGY (Ph.D.)

The program is designed as a combined M.T.S./Ph.D. program. It aims to relate faith to culture in our contexts just as Augustine did in his. Inasmuch as Augustine's theology related faith, reason, and culture, the Doctoral program by its very focus embodies the Augustinian tradition.

Requirements

To fulfill the requirements of the combined program, all students who do not have credits approved for transfer complete seventy-eight graduate credit hours of course work during the first seven semesters of residence and additional six credits in theological education during semesters seven through ten of residence. Students also enroll in one dissertation writing course and complete the Theological Education Formation program.

- i. 15 credit hours (5 courses) in foundation course work, three credits each in Biblical Studies, Historical Theology, Systematic and Fundamental Theology, Christian Spirituality, and Christian Ethics.
- ii. Three credit hours (1 course) in culture theory
- iii. 12 elective credit hours (4 courses), three credits each in Biblical Studies, Systematic and Fundamental Theology, Christian Spirituality, and Christian Ethics
- iv. 21 credit hours (7 courses) in each of two areas of specialization
- v. 6 credit hours (2 courses) in teaching training—theory and supervised practicum

MASTER'S PROGRAMS

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. Our programs prepare for secondary school teaching or doctoral studies and provide further foundation for those in educational or ministerial leadership.

Requirements for Master of Theological Studies (M.T.S)

To earn the MTS, students must complete forty-eight (48) credits in course work, which include foundation courses (15 credits), area courses (15 credits), and free electives (18 credits). Students also demonstrate reading comprehension in a foreign language (modern or ancient) that complements their studies. Students may develop a concentration in one area of studies (18 credits). Exit requirements are identical to those in the M.A. degree.

Requirements for Master of Arts (M.A.)

For graduation, Master of Arts students must complete thirty (30) credits. The exit requirement is a portfolio review.

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 specific needs and professional objectives. The programs include coursework in theological and interdisciplinary studies. Courses may be applied toward the M.A. or M.T.S. degrees.

JOINT PROGRAMS

These programs offer the opportunity to combine the MA in Theology with a departmental or extra-departmental Certificate.

- i. Master of Arts with Certificate in Pastoral Ministry & Non-Residential Hall Internship (full-time or part-time; 42 credits; day and evening course offerings)
- ii. Master of Arts with Certificate in Pastoral Ministry & Residential Hall Internship (full-time, 42 credits. on-campus practicum)
- iii. Master of Arts with Certificate in History (full-time or part-time; 36 credits; day and evening course offerings)
- iv. Master of Arts & Certificate in education (full-time or part-time; 42 credits; day and evening course offerings)
- v. Master of Arts & Certificate in Non-Profit Management (full-time or part-time; 36 credits; day and evening course offerings)
- vi. Master of Arts with Certificate in Gender and Women's Studies (full-time or part-time; 36 credits; day and evening course offerings)
- vii. Master of Arts with Certificate in Advanced Theological Studies (full-time or part-time; 39 credits; day and evening course offerings)

DUAL MASTER'S DEGREES

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, Public Administration, Church Management, English, and Education. Other individualized programs are possible.

A course listing can be found on Villanova's website.

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