

BULLETIN OF INFORMATION

GRADUATE PROGRAMS | 2011-2012



UNIVERSITY OF
NOTRE DAME

The Graduate School

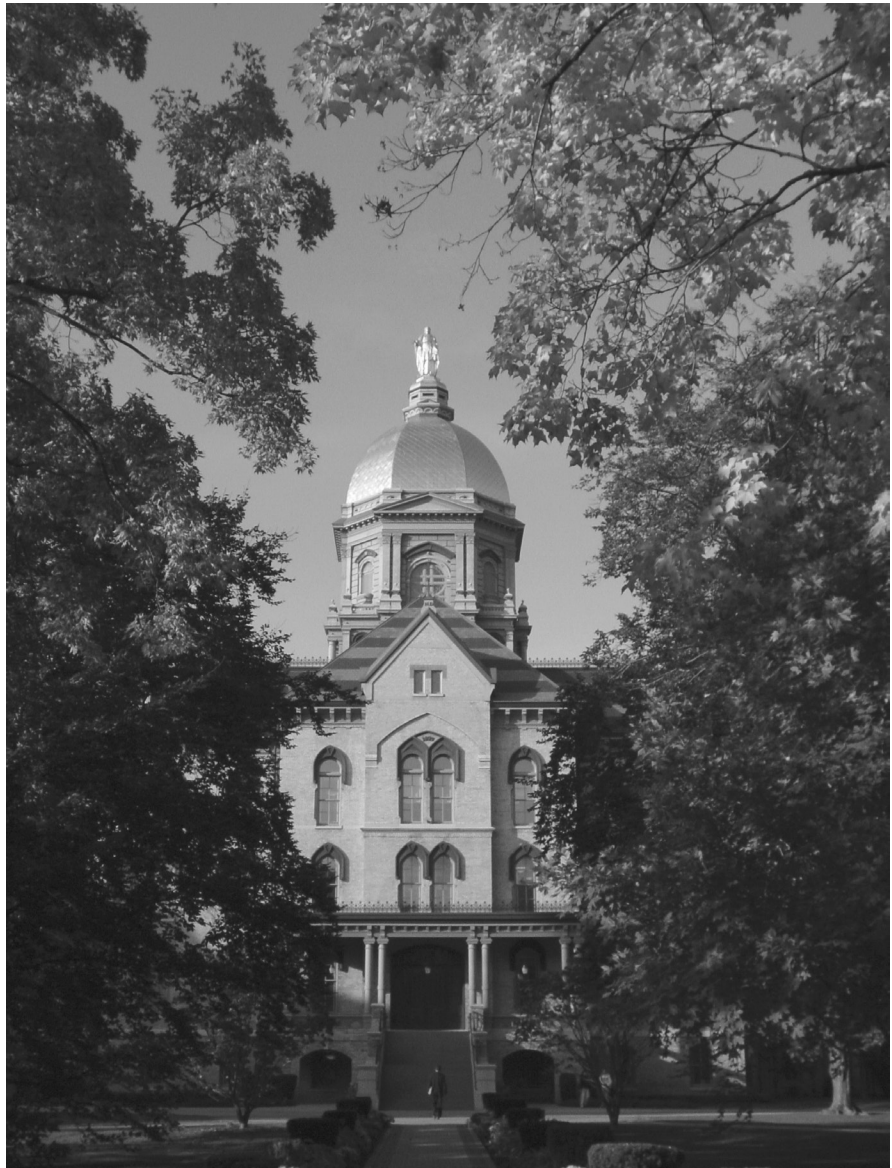


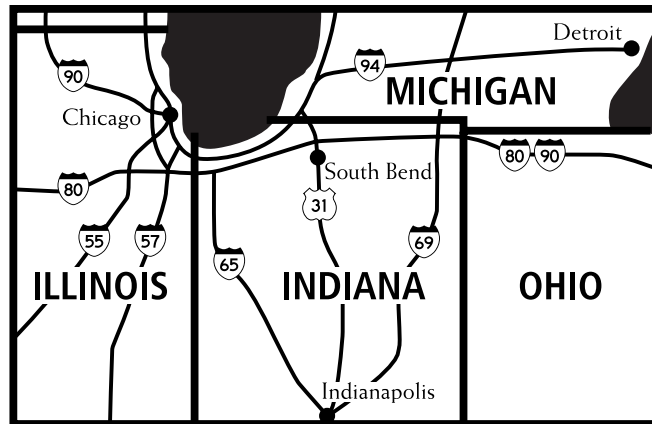
UNIVERSITY OF
NOTRE DAME

2011–2012 ***Bulletin of Information*** University of Notre Dame Graduate Programs and Policies

The University reserves the right to change its admission, registration, and graduation requirements as necessary. The course offerings and requirements of the University of Notre Dame are continually under examination and revisions are expected. This Bulletin of Information is not a contract; it merely presents the offerings and requirements in effect at the time of publication and in no way guarantees that the offerings and requirements will remain the same. Every effort will be made to provide advance information of any changes.

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The Michiana Regional Transportation Center provides from one location services for travel by air, train, bus, and rental car, including the South Shore Railroad, an electric commuter train to Chicago. South Bend is also served by Amtrak. The city lies about 90 miles east of Chicago, Illinois, 140 miles north of Indianapolis, Indiana, and 200 miles west of Detroit, Michigan.

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Philosophy			
Romance Languages and Literatures			
Theology			
The Division of Science			
Applied and Computational Mathematics and Statistics			
Biological Sciences			
Chemistry and Biochemistry			
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Economics			
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Psychology			
Sociology			
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Academic Calendar 2011-2012

Fall Semester 2011

August

- 23: Classes begin;
Mass—formal opening of school year

September

- 1: Last day for course changes

October

- 15: Midsemester break begins
24: Classes resume
28: Last day for course discontinuance

November

- 1: Application deadline for admission to the Graduate School for spring semester 2012
11: Dissertation and thesis formatting checks due
14: Registration for spring semester 2012 begins
23: Thanksgiving holiday begins
28: Classes resume

December

- 2: Last day for master's examinations and Ph.D. dissertation defenses for graduation in January 2012
8: Last class day
9: Reading days begin;
Last day for presenting completed theses and dissertations in the Graduate School office for graduation in January 2012
12: Final examinations begin
19: All grades submitted through insideND by 3:45 p.m.

January

- 8: January official graduation date (no ceremony)

Spring Semester 2012

January

- 17: Classes begin
24: Last day for course changes

February

- 1: Deadline for applying to the Graduate School for fall semester 2012 admission and financial aid

March

- 10: Midsemester break begins
16: Dissertation and thesis formatting checks due
19: Classes resume
21: Registration for summer session 2012 begins
23: Last day for course discontinuance

April

- 6: Easter holiday begins
10: Classes resume
13: Last day for master's examinations and Ph.D. dissertation defenses for graduation in May 2012
16: Registration for fall semester 2012 begins
20: Last day for presenting completed theses and dissertations in the Graduate School office for graduation in May 2012

May

- 2: Last class day
3: Reading days begin
7: Final examinations begin
14: All grades submitted through insideND by 3:45 p.m.
19: Graduate School Commencement Ceremony

Summer Session 2012

June

- 18: Classes begin
24: Dissertation and thesis formatting checks due

July

- 13: Last day for master's examinations and Ph.D. dissertation defenses for graduation in August 2012
20: Last day for presenting completed theses and dissertations in the Graduate School office for graduation in August 2012

August

- 3: Last class day
8: August official graduation date (no ceremony)

The University

Notice of Nondiscrimination

The University of Notre Dame does not discriminate on the basis of race, color, national or ethnic origin, sex, disability, veteran status, or age in the administration of any of its educational programs, admissions policies, scholarship and loan programs, athletic and other school-administered programs, or in employment.

The University has designated the director of its Office of Institutional Equity to handle all inquiries regarding its efforts to comply with and carry out its responsibilities under Title IX and under Section 504 of the Rehabilitation Act of 1973. The Title IX and Section 504 coordinator may be contacted as follows:

Director
Office of Institutional Equity
414 Grace Hall
University of Notre Dame
Notre Dame, IN 46556
(574) 631-0444

The Spirit of Inclusion at Notre Dame*

The University of Notre Dame strives for a spirit of inclusion among the members of this community for distinct reasons articulated in our Christian tradition. We prize the uniqueness of all persons as God's creatures. We welcome all people, regardless of color, gender, religion, ethnicity, sexual orientation, social or economic class, and nationality, for example, precisely because of Christ's calling to treat others as we desire to be treated. We value gay and lesbian members of this community as we value all members of this community. We condemn harassment of any kind, and University policies proscribe it. We consciously create an environment of mutual respect, hospitality, and warmth in which none are strangers and all may flourish.

Policies on Harassment

Sexual and discriminatory harassment and harassment in general are prohibited by the University. Definitions and policies regarding all forms of harassment and other aspects of student life and behavior are described in *du Lac: A Guide to Student Life* (the student handbook). All policies, procedures, guidelines and codes of conduct that establish the official parameters for student life at Notre Dame are contained in this handbook. Unless otherwise noted, the policies and procedures in the handbook apply to all graduate and professional students, whether the behavior occurs on or off campus. The handbook may be obtained from the Office of Residence Life and Housing, located at 305 Main Building, and is available from the Office of Residence Life and Housing Web site at <http://orlh.nd.edu>.

Officers of the University

REV. JOHN I. JENKINS, C.S.C., D. Phil.
President of the University
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Vice President for Business Operations
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Vice President and Chief Investment Officer
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Vice President and Senior Associate Provost
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Associate Vice President and Counselor to the President
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Associate Vice President for Human Resources
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Vice President for University Relations
DONALD B. POPE-DAVIS, Ph.D.
Vice President and Associate Provost
JOHN A. SEJDINAJ
Vice President for Finance
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Chief of Staff and Special Assistant to the President
JOHN B. SWARBRICK JR., J.D.
Athletic Director

Board of Trustees

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Chicago, Illinois
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Portland, Oregon
Robert F. Biolchini, J.D.
Tulsa, Oklahoma

*From the statement of inclusion adopted by the officers of the University of Notre Dame on August 27, 1997.

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Dallas, Texas

The Graduate School

Notre Dame is the world's pre-eminent Catholic research university, a center of learning that embraces the intellectual ferment of academic enquiry and encourages its students and faculty to address ultimate questions, relationships among religion and the academic disciplines, and ethics. Quality is the hallmark of our graduate programs, which is reflected in the selectivity of our admissions, the comparatively small size of entering classes, and the close, personal mentoring that is possible in such an environment. World-class faculty and gifted graduate students share a vision of enquiry, dedication to scholarship and teaching, and service within and without the academic community.

Distinguished faculty, financial support for research, and ongoing investment in facilities invigorate graduate study at Notre Dame. Major construction projects continue to add new campus buildings and create environments that bring faculty, graduate students, and undergraduates together in cross-disciplinary research at the highest level.

History of the Graduate School

Located north of the city of South Bend, Indiana, the University of Notre Dame was founded in 1842 by the Rev. Edward F. Sorin, a priest of the Congregation of Holy Cross. The state of Indiana chartered the University by a special act of the legislature. Combining the style of the French "college" and the seminary where Father Sorin and his congregational fellows studied for the priesthood, Notre Dame began as both a secondary school and a four-year college offering the baccalaureate degree in the liberal arts. It soon adapted to the style and structure of the typical nineteenth-century American university, introducing a science curriculum in 1865, the first American Catholic law school in 1869, an engineering college in 1873, a graduate program in

1918, and a college of business in 1921. The North Central Association first accredited the University in 1913. Notre Dame first began to award advanced degrees in 1918; the Graduate School was instituted in 1944. Since 1990, it has been administered by a dean and several associate deans, and the Graduate Council. It has four divisions — humanities, social sciences, science, and engineering — and includes approximately 30 departments and programs that offer master's or doctoral degrees. There are about 10,000 undergraduates and 1,700 graduate students at Notre Dame, in addition to post-doctoral fellows, and another 1,500 in the law and business schools. Over 85% of graduate students receive some form of financial aid. They come from all fifty states and over 100 nations.

Administration

Administered originally by a graduate committee of faculty members, the Graduate School was organized formally in 1944 with a graduate dean and graduate council. In 1971, the newly created position of vice president for advanced studies underlined the University's intense focus on building quality in the graduate programs. The position's title was changed in 1990 to vice president for graduate studies and research, and several assistant and associate dean positions were created to assist the vice president. In 2007, the research office was separated from the Graduate School, and the new position of dean of the Graduate School, with exclusive responsibility for graduate studies, was created.

The Graduate Council

Following is the Graduate Council membership for the 2011–2012 academic year.

Ex Officio Members

Gregory E. Sterling, Ph.D.
Chair and Dean of the Graduate School

Robert J. Bernhard, Ph.D.

Vice President for Research

Gregory P. Crawford, Ph.D.

Dean of the College of Science

Peter K. Kilpatrick, Ph.D.

Dean of the College of Engineering

Michael Lykoudis, M.Arch

Dean of the School of Architecture

John T. McGreevy, Ph.D.

I.A. O'Shaughnessy Dean of the

College of Arts and Letters

Nell Jessup Newton, J.D.

Joseph A. Matson Dean of the Law

School and Professor of Law

Roger Huang, Ph.D.

Interim Dean of the Mendoza

College of Business and Kenneth R.

Meyer Chair in Global Investment

Management

Diane Parr Walker

Edward H. Arnold University Librarian,

Hesburgh Libraries

Elected Members

Sunny Boyd, Ph.D.

Professor of Biological Sciences

David Campbell, Ph.D.

Associate Professor of Political Science

Jeremy Fein, Ph.D.

Professor of Civil Engineering and Geological Sciences

Gerald McKenny, Ph.D.

Professor of Theology

Research Faculty (TBD)

Appointed Members

Margaret Doody, Ph.D.

Professor of English

Thomas Corke, Ph.D.

Professor of Aerospace and Mechanical Engineering

Mark Cummings, Ph.D.

Professor of Psychology

Marvin Miller, Ph.D.

Professor of Chemistry and Biochemistry

THE GRADUATE SCHOOL

Representatives from the Academic Council

Six representatives from the Academic Council will be announced.

Graduate Student Representatives

Sam Rund
Biological Sciences, President of the
Graduate Student Union
Ellen Childs
Sociology, Co-Vice President of the
Graduate Student Union

Graduate School Representatives (Non-Voting)

Laura Carlson, Ph.D.
Associate Dean for Professional
Development
Brian Flaherty, MBA
Associate Director of Budget and
Operations
John Lubker, Ph.D.
Associate Dean of Students
Edward Maginn, Ph.D.
Associate Dean for Academic
Programs
Nyrée McDonald, Ph.D.
Associate Dean for Recruitment and
Admissions

Graduate Student Union

Through a council of elected officers, appointed committee chairs and representatives from the departments of its constituent colleges, the Graduate Student Union (GSU) provides a variety of services and represents its membership on several University councils and committees. In particular, it subsidizes graduate student travel to present original research, promotes excellence in graduate education, looks for the highest quality of life for graduate students, and maintains a liaison with the administration regarding pertinent issues. The GSU maintains a website with current events and resources for graduate students, provides listserv updates, conducts a graduate orientation program, and offers awards for outstanding teaching assistants and graduate instructors, in addition to providing various social, cultural, and intellectual activities. The GSU is the graduate students' official liaison with the University administration and the Office of Student Activities.

The Graduate Student Union finances its operations and Conference Presentation Grant

through contributions from the Graduate School and a yearly mandatory activity fee. Graduate Students are eligible to apply for the grant if they: (1) are enrolled in the Graduate School, and (2) pay the annual fee.

The Graduate Student Union maintains offices at Room 217 in the LaFortune Student Center; send e-mail inquiries to frahn.2@nd.edu. Telephone: (574) 631-6963, Web: <http://www.gsu.nd.edu>.

Graduate Degrees Granted

Master of Arts in the following fields:
Art History, Design, and Studio Art
Classics
Economics
Educational Administration
English
French and Francophone Studies
History
History and Philosophy of Science
Iberian and Latin American Studies
Italian Studies
Peace Studies
Philosophy
Political Science
Psychology
Sociology
Theology
Master of Divinity
Master of Education— limited to students in the Alliance for Catholic Education (ACE) program
Master of Educational Administration — limited to students in the Alliance for Catholic Education (ACE) program
Master of Engineering (only with J.D.)
Master of Engineering in Mechanical Engineering
Master of Fine Arts in the following fields:
Creative Writing
Design
Studio Art
Master of Medieval Studies
Master of Sacred Music
Master of Science in Aerospace Engineering
Master of Science in Applied and Computational Mathematics and Statistics
Master of Science in Applied Mathematics
Master of Science in Bioengineering
Master of Science in Chemical Engineering
Master of Science in Civil Engineering
Master of Science in Computer Science and Engineering

Master of Science in Electrical Engineering
Master of Science in Environmental Engineering
Master of Science in Global Health
Master of Science in Mechanical Engineering
Master of Science in the following fields:
Biochemistry
Biological Sciences
Chemistry
Geological Sciences
Mathematics
Physics
Master of Theological Studies
Doctor of Philosophy in the following fields:
Aerospace and Mechanical Engineering
Applied and Computational Mathematics and Statistics
Biochemistry
Bioengineering
Biological Sciences
Chemical and Biomolecular Engineering
Chemistry
Civil Engineering and Geological Sciences
Computer Science and Engineering
Economics
Electrical Engineering
English
History
History and Philosophy of Science
Literature
Mathematics
Medieval Studies
Peace Studies
Philosophy
Physics
Political Science
Psychology
Sociology
Theology

Areas and Fields of Study

The University of Notre Dame offers graduate programs leading to master's and/or doctoral degrees in the following areas and fields of study:

Aerospace and Mechanical Engineering

Aerospace Sciences
Biomechanics, Biomaterials, and Biofluid Mechanics
Computational Mechanics
Control Systems
Flow Physics and Control

THE GRADUATE SCHOOL

- Fluid Mechanics
 Manufacturing
 Materials Science
 Mechanical Systems and Design
 Orthopaedics and Biomedical Devices
 Solid Mechanics and Materials
 Thermal Sciences
 Tissue Engineering
- Applied and Computational Mathematics and Statistics*
 Applied Mathematics
 Computational Mathematics
 Statistics
- Art, Art History, and Design*
 Studio Art+
 Ceramics
 Painting
 Photography
 Printmaking
 Sculpture
 Art History*
 American
 Ancient
 Contemporary
 Medieval
 Modern European
 Renaissance and Baroque
 Design+
 Graphic Design
 Industrial Design
- Biological Sciences*
 Animal Behavior
 Aquatic Biology
 Biochemistry
 Biogeochemistry
 Biotechnology
 Cancer Biology
 Cell and Molecular Biology
 Developmental Biology
 Ecology
 Ecosystem Ecology
 Endocrinology
 Environmental Biology
 Environmental Microbiology
 Evolutionary Biology
 Genetics and Bioinformatics
 Genomics
 Medical Entomology and Vector Biology
 Microbial Pathogenesis
 Neurobiology
 Nutritional Sciences
 Parasitology and Infectious Diseases
 Physiology
 Plant Science
 Population Biology
- Chemical and Biomolecular Engineering*
 Applied Mathematics
 Atomistic Simulation of Materials
- BioFuels
 Biomolecular Engineering
 Biophysical Characterizations of Macromolecules
 Catalyst Synthesis and Characterization
 Chemical Sensing
 Carbon Dioxide Capture
 Combinatorial Materials Development
 Computational Heterogeneous Catalysis
 Density Functional Theory
 Drug Delivery
 Drug Design
 Ecological and Environmental Modeling
 Electrokinetics
 Fuel Cell Technologies
 Genetic Diagnostics
 Heterogeneous Phase Change Simulation
 Ionic Liquids
 Materials Science
 Membranes
 Micro and Nano-Fluidics
 Multiphase Flow Dynamics
 Nanomaterials
 Optoelectronic Materials
 Oscillatory Separations
 Peptide Design and Synthesis
 Phase Equilibrium
 Process Systems Engineering
 Soft Lithography
 Suspension Mechanics
 Sustainable Energy
- Chemistry and Biochemistry*
 Analytical Chemistry
 Drug Design and Discovery
 Environmental Chemistry
 Materials Chemistry
 Molecular Medicine
 Molecular and Cell Biology
 Nanotechnology
 Radiation Chemistry
 Structural Biology
 Surface Science
 Synthetic Chemistry
 Theoretical and Computational Chemistry
- Civil Engineering and Geological Sciences*
 Actinide Material Science
 Aquatic Chemistry
 Bioengineering
 Biological Treatment of Hazardous Waste
 Computational Fluid Mechanics
 Development Studies
 Dynamics of Offshore Structures
- Earthquake Engineering
 Environmental Biotechnology
 Environmental Engineering
 Environmental Fluid Dynamics
 Environmental Microbiology
 Environmental Mineralogy
 Environmental Nanoscience and Technology
 Environmental Sensors
 Finite Element Modeling
 Fire Effects on Structures
 Groundwater Hydrology
 High and Low Temperature Geochemistry
 Mantle Petrology
 Materials Characterization and Durability
 Multiphase Flows
 Natural and Man-made Hazard Reduction
 Paleontology
 Progressive Collapse of Structural Systems
 Structural Dynamics
 Structural Engineering
 Structural Health Monitoring
 Structural Mechanics and Design
 Structural Reliability
 Tall Buildings and Long-Span Bridges
 Water and Wastewater Treatment
 Wind Engineering
- Classics*
 Early Christian Studies
 Classical Studies
- Computer Science and Engineering*
 Architecture: Nano-scale and High-performance
 Computational Biology and Bioinformatics
 Computer Vision
 Data Mining and Machine Learning
 Systems: Networks, Distributed Systems, and Security
 Theory: Algorithm Design and Applications
- Economics*
 International Economics
 Monetary and Macroeconomics
 Industrial Organization
 Public Economics
 Environmental Economics
 Labor Economics
- Education*
 Teaching
 Educational Administration
- Electrical Engineering*
 Communication Systems and Networking

- Control Systems
Nano-biotechnology
Nanoelectronics
Optoelectronics
Semiconductor Materials and Devices
Signal and Image Processing
Integrated Circuits
Wireless Networks
- English**
Old and Middle English
Renaissance
Restoration and 18th Century
Romantic and Victorian
Modern British
Early American (to 1865)
Middle American (from the Civil War to 1930)
Post 1930 American Literature
African American
Latino/a Studies
Irish Studies
Drama
Novel
Poetry
Prose Fiction
Literary Theory
Creative Writing++
- History**
Latin American History
Medieval History
Modern European History
United States History
- History and Philosophy of Science**
History of the Philosophy of Science
Analytic Philosophy of Science and Epistemology
History and Philosophy of Biology 1700 to 1980
Philosophy of Contemporary Physics
History of Astronomy and Physics
Medieval Natural Philosophy and Medicine
History and Philosophy of Economics
Philosophy of Mind and Neuroscience
Social History of Medicine and Technology
History and Philosophy of Mathematics
Intellectual History of Science 1600 to 1950
Scientific Revolution Studies
Science and Literature
- Literature**
Classics
East Asian Studies
French
German
Irish Studies
Italian
Spanish (Iberian and Latin American)
- (Literatures can be studied in various combinations)
- Mathematics**
Algebra
Algebraic Geometry
Complex Analysis
Differential Geometry
Logic
Partial Differential Equations
Topology
- Medieval Studies**
Art History
History
Language and Literatures
Manuscript Studies
Music
Philosophy
Theology
- Peace Studies**
Peace Studies and History
Peace Studies and Political Science
Peace Studies and Psychology
Peace Studies and Sociology
Peace Studies and Theology
- Philosophy**
Ancient Philosophy
Contemporary European Philosophy
Epistemology
Ethics
Logic
Medieval Philosophy
Metaphysics
Modern Philosophy
Philosophy of Language
Philosophy of Mathematics
Philosophy of Mind
Philosophy of Religion
Philosophy of Science
Political Philosophy
- Physics**
Astrophysics
Atomic Physics
Biophysics
Condensed Matter Physics
Elementary Particle Physics
Network Physics
Nuclear Physics
Statistical Physics
Theoretical Physics
- Political Science**
American Politics (including public law)
Comparative Politics
Constitutionalism, Law, and Politics
International Relations
Political Theory
- Psychology**
Cognitive Psychology
Clinical Psychology
Counseling Psychology
Developmental Psychology
Quantitative Psychology
- Romance Languages and Literatures***
(See Literature for Ph.D. program)
Comparative Literatures
French and Francophone Studies—Middle Ages, Renaissance, 17th-century Classical, 18th-century Enlightenment, 19th Century, 20th Century
Italian Studies—Italian Literature: Medieval, Renaissance, Modern; Art History; Architectural History; Film Studies; Translation; History; Philosophy; Music
Iberian and Latin American Studies—Medieval, Golden Age, Colonial Spanish-American, Modern Spanish Peninsular, Modern Spanish-American Periods; Gender Studies
- Sacred Music**
Organ Concentration
Choral-Vocal Concentration
- Sociology**
Cultural Sociology
Education
Political Sociology
Religion
Social Psychology
Social Movements
Social Stratification
Theory
- Theology**
Biblical Studies*
Christianity and Judaism in Antiquity—Hebrew Bible and Judaica, New Testament and Early Church
Early Christian Studies*
History of Christianity—Early Church, Medieval Studies, Reformation Studies, Modern Studies
Liturgical Studies
Moral Theology/Christian Ethics
Systematic Theology
Professional Studies*
(Master of Divinity Program)
Theological Studies*

* Master's programs only

+ Master's program and M.F.A. in studio art and design

++ M.F.A. in creative writing

Academic Regulations

Please note:

The following information represents the minimum standards established by the Graduate School. Individual departments may require higher standards. Students are expected to be fully cognizant of their department's requirements.

No exceptions to the following policies and procedures will be valid without the formal written approval of the Graduate School.

ACADEMIC REGULATIONS

Admission to the Graduate School

Applicants for admission to the Graduate School must hold a bachelor's degree or its equivalent from an accredited American college or university or from a foreign institution of acceptable standing by the time of graduate matriculation. If at that time an admitted applicant does not hold a bachelor's degree, the Graduate School admission is void. The applicant should have earned at least a B average in his or her undergraduate major courses and should meet the level of academic achievement that implies a developed ability for advanced study and independent scholarship.

An applicant may seek admission to either degree-seeking status or non-degree status in either a master's or doctoral program.

Admission to a graduate degree program is not equivalent to admission to candidacy for the degree (see "Admission to Candidacy," under master's and Ph.D. degree requirements.) It should also be noted that admission to the master's program does not automatically mean admission to the doctoral program upon completion of the master's program. A separate decision is required for continuation in the doctoral program.

Application Requirements

An applicant for admission must complete all of the following:

1. Complete and electronically submit the online application
2. Submit a statement of intent through the online application system
3. Submit a curriculum vitae or resumé through the online application system
4. Arrange for three (3) letters of recommendation to be submitted through the online recommendation system associated with the online application
5. Submit the application fee by credit card, check, or money order using the payment system associated with the online application system
6. Submit unofficial transcripts from each post-secondary institution through the online application.

7. Arrange for the submission of official Graduate Record Examination (GRE) General Test scores
8. Arrange for the submission of official GRE Subject Test scores if required by the department
9. Arrange for submission of official Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) scores if the applicant's native language or language of college instruction is not English

The online application may be accessed through the Graduate School's website. Students who have preliminary test scores are encouraged to attach them to the application to expedite the review process.

Students seeking admission to more than one department, but who plan to enroll in only one, must submit separate applications for each department. Only one application fee is necessary.

The application fee of \$50 must accompany the application. This fee is non-refundable, and may be paid by check, money order, or credit card (see online application).

Application deadlines range from January 1 to February 1 for admission to the fall semester. Applicants may visit the Graduate School's website to determine the deadline for individual programs. Unless otherwise specified, the application deadline for spring admission is November 1, though some departments have earlier deadlines. Applicants may visit the Graduate School's website to determine the deadline for individual programs. It should be noted that only a few departments offer spring admission. Therefore, applicants who wish to begin in the spring are advised to consult the department prior to submitting an application.

Beyond these Graduate School admission requirements for all graduate departments and programs, particular programs may require personal interviews and/or submission of special materials such as writing samples or portfolios. Applicants should consult the individual department or program to learn about additional requirements and submission procedures.

The Graduate Record Examination (GRE) is offered at sites in the United States and abroad. The annual schedules and other information about the GRE can be obtained online at <http://www.gre.org> or from Educational Testing Service (ETS), Graduate Record Examination, Box 6000, Princeton NJ 08541-6000, USA. If you need to call about the GRE, telephone the Educational Testing Service at (609) 771-7670.

The Test of English as a Foreign Language (TOEFL) and the International English Language Testing System (IELTS) are offered several times each year at sites in the United States and abroad. Foreign students, except those noted above, must submit TOEFL or IELTS scores as part of their application to demonstrate a sufficient command of English to meet the requirements of their field. If not available locally, the annual schedules and other information about the TOEFL can be obtained online at <http://www.toefl.org> or from Educational Testing Service (ETS), TOEFL, Box 6151, Princeton NJ 08541-6151, USA. If you need to call about the TOEFL, telephone the Educational Testing Service at (609) 771-7100. Information on the IELTS can be obtained online at <http://ielts.org>.

Admission to Multiple Degree Programs

An applicant who seeks admission to more than one master's degree program in the Graduate School in order to earn two degrees, or an applicant who seeks admission to a degree program in the Graduate School concurrently with a degree program in another school in the University (i.e., Law School, the School of Architecture, Mendoza College of Business, or the ESTEEM Program) must submit a separate and complete application for each program. The applicant must also be accepted by each of the cooperating departments. The Graduate School will consider only applicants whose past academic performance indicates the potential for success in each of the programs. In consultation with the appropriate advisers from each unit, the applicant will select a plan of study acceptable to all units. The Graduate School must approve the written plan of study before the student may begin the program. No more than

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nine credit hours of classes from any one master's degree may be counted toward any other master's degree.

Admission to Joint Degree Programs

It is possible for a student to pursue a program of study combining two programs and leading to a joint degree. An applicant who seeks to earn a joint degree, either master's or Ph.D., must submit a separate and complete application to each program and be accepted by both. The relevant departments must agree upon a plan of study defining what will constitute the joint degree program, and the approved written plan must be on file with the Graduate School before the student may begin the program.

Non-degree Applicants

An applicant for admission to a non-degree program must complete all of the following:

1. Complete and electronically submit the online application
2. Submit a statement of intent through the online application system
3. Submit a curriculum vitae or resumé through the online application system
4. Submit unofficial transcripts from each post-secondary institution through the online application
5. Submit the application fee by credit card, check, or money order using the payment system associated with the online application system

A non-degree applicant may seek admission as a departmental non-degree student or as an unclassified, visiting, or auditing student in the Graduate School.

A departmental non-degree student is one who has been admitted to a department but does not seek an advanced degree from the University. An applicant with degree intent who lacks one or more admission requirements may be admitted temporarily to this non-degree status at the discretion of the department and with the approval of the associate dean for graduate admissions. The student may register for one to 12 credit hours in any graduate courses for which he or she meets the course prerequisites. However, no student initially admitted to non-degree status will be admitted to degree status until all admission require-

ments have been satisfied. No more than 12 credit hours earned by a student while in a non-degree status may be counted toward a degree program. Admission as a departmental non-degree student does not guarantee later admission as a degree-seeking student.

An unclassified student is one who is admitted to the Graduate School in a non-degree status, but who is not a member of a particular department. Such a student may, with the approval of the Graduate School, take courses in any graduate department, subject to approval by the department. This category is usually open to non-degree students who wish to take courses in more than one department or students who have completed their degree programs, but wish to continue in the University in graduate student status. No more than 12 credit hours earned by a student while in a non-degree status may be counted toward a degree program. Admission as an unclassified non-degree student does not guarantee later admission as a degree-seeking student.

A visiting student is normally a degree student in another university who enrolls for credit in selected courses at Notre Dame. Unless otherwise arranged by the home university and Notre Dame, the visiting student is considered a non-degree student at Notre Dame and follows the same application and enrollment procedures as a non-degree student.

An auditor is a non-degree student who meets the course prerequisites but receives no academic credit. With the permission of the instructor and the department chair, a degree student also may audit courses. Audited courses may be recorded on a student's permanent record only if the student requests the instructor to record it at the beginning of the semester and if he or she attends the course throughout the entire semester. A recorded audit is graded V. Incomplete audits are not recorded. The audit grade of V cannot be changed to a credit grade.

In the academic year, full-time graduate students may audit courses without charge. Part-time graduate students who audit courses will be charged the normal audit fee of one-half the current credit hour fee.

In the summer session, there is no free audited course. Any course taken or audited in the summer session will be charged the full price.

Acceptance

Official acceptance to the Graduate School in the academic year is granted only by the associate dean. Applicants will be informed officially of the results of their application by a letter from the associate dean for graduate admissions. Applicants who intend to accept offers of admission are required to confirm their acceptance by returning the appropriately completed form that is supplied online.

Council of Graduate Schools Policy on Accepted Offers of Admission

In accordance with a resolution passed by the Council of Graduate Schools in the United States, the following policy is in effect:

By accepting an offer of financial aid (such as a graduate scholarship, fellowship, traineeship, or assistantship) for the next academic year, the enrolled or prospective graduate student completes an agreement that both the student and graduate school expect to honor. When a student accepts an offer before April 15 and subsequently desires to withdraw, the student may submit a written resignation for the appointment at any time through April 15. However, an acceptance given or left in force after April 15 commits the student not to accept another offer without first obtaining a written release from the institution to which a commitment has been made. Similarly, an offer made by an institution after April 15 is conditional on presentation by the student of a written release from any previously accepted offer. It is further agreed by the institutions and organizations subscribing to this resolution that a copy of the resolution should accompany every scholarship, fellowship, traineeship, and assistantship offer.

Enrollment in the University

Once admitted, all degree and non-degree graduate students must complete ND Roll Call and register each semester at the dates

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and times announced by the University Registrar.

Any admitted student who fails to register and complete the ND Roll Call process for one semester or more must apply for readmission upon return. (See “Continuous Registration,” below.)

Full-time and Part-time Status

A full-time student is one who is working full time toward his or her degree objective.

During the fall and spring semesters, a degree-seeking student is expected to work full time toward his or her degree objective, and must register for at least nine credit hours to maintain full-time status. Students not registered for at least nine credit hours will be considered part-time.

Students who receive a stipend during the summer must register for their department’s independent study course.

No degree-seeking student may hold a job, on or off campus, without the express permission of his or her department and the Graduate School.

A non-degree student must register for at least nine credit hours per semester, or six in the summer session, to claim full-time status.

Academic Good Standing

Continuation in a graduate degree program or in non-degree status, admission to degree candidacy, and graduation require maintenance of at least a 3.0 (B) cumulative grade point average (G.P.A.). A student may be dismissed from the department or program if the G.P.A. in any one semester is below 2.5 or if the G.P.A. is below 3.0 for two consecutive semesters. Some departments require higher averages for enrollment and support continuance.

An adequate G.P.A. is only one factor taken into consideration in determining a student’s qualifications for an advanced degree. Degree students should be aware of their department’s performance criteria. The department and the Graduate School annually evaluate each graduate student’s overall performance on the basis of these criteria.

A student must be in academic good standing to be eligible for new or continued financial support.

Continuous Registration

All students must complete the ND Roll Call process each semester in the academic year and register for at least one credit hour per semester to maintain their student status. Continuous registration is met normally by both ND Roll Call participation and registration in a graduate-level course relevant to the student’s program. A student who is concurrently pursuing degrees in the Graduate School and in another school in the University meets the continuous enrollment requirement by registering for a course in either program. Any exception to this rule, including a leave of absence, must be approved by the Graduate School. (See “Leave of Absence,” below.) Degree students who have completed the course work requirement for their degree must register for at least nine credit hours per semester, including the final semester or summer session in which they receive their degree. These credit hours should consist of either resident or non-resident thesis or dissertation research within their department. Students registered for nine credit hours may be considered full-time students whether or not they are in residence. Students not in residence and taking nine credit hours pursuant to continuous enrollment requirements are charged a special registration fee.

A student who fails to complete the ND Roll Call process and register for a class one semester or more must apply for readmission upon return.

Continuing students (i.e., degree-seeking students who are eligible to continue their studies in the fall semester) may have access to University facilities and services from May through August without completing the ND Roll Call process and registering for academic credit in the summer session.

Leave of Absence

For exceptional reasons and on the recommendation of the department, a student in good academic standing may request a leave of absence for a maximum of two

consecutive semesters. A request for a leave of absence must be made before the semester in which the leave is taken, and all leaves of absence must be approved by the Graduate School. If, for some urgent reason, a student is allowed to leave the University after the beginning of the semester, the withdrawal procedure below must be followed. If at the end of the leave of absence period the student does not return, the student is considered terminated. Application for readmission is required if the student wishes to return.

In the case of a medical leave of absence, clearance from the University Health Center is required prior to readmission.

Medical Separation from Academic Duties

Students enrolled in the Notre Dame Graduate School who wish to temporarily interrupt their programs for medical reasons must apply to the Graduate School. Students are eligible under this policy if they have a “serious medical condition.” For purposes of this policy, “serious medical condition” means a medical condition that (1) requires multiple day hospitalization OR (2) renders the student unable to engage in coursework and all other Graduate School-related duties for a period of at least ten (10) calendar days. Certification by a physician that the student has a serious medical condition as defined in this policy must be submitted to the Graduate School as soon as the need is foreseen (for emergency requests). In all cases, regardless of the nature of the medical condition, the duration of the separation will be as certified by the physician up to a maximum of six weeks. Students may utilize this medical separation policy two non-consecutive times during their graduate studies. Should students need more than six weeks at any one time, they must withdraw from the University. Leaves of absence for one semester or more for medical or other reasons are governed by the Graduate School Leave of Absence policy.

Full-time degree-seeking students in their fifth year of study or less in good academic standing who are receiving financial aid from the Graduate School or external funds will receive a stipend equal to their normal stipend during their period of separation, for a maximum of six weeks

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paid by the Graduate School. Students will retain their tuition scholarships, access to on-campus medical facilities, and all other resources available to students during the entire separation period (up to six weeks). Students also will be deemed “continuously enrolled” at the University during the entire period of separation.

Teaching Assistant and Research Assistant duties will cease at least during the period of separation. Students are responsible for contacting their DGS or adviser to make arrangements to cover their duties. Students taking classes will be required to make arrangements with individual course instructors for completion of any courses in progress during the leave. Students will be granted the option to re-schedule exams, extend candidacy deadlines or other deadlines not discussed herein. Students are responsible for making arrangements to reschedule exams, extend deadlines and to make up other work not discussed herein. Unlike a regular one-semester leave, time off in conjunction with this policy *will* count towards the students’ degree time limit of eight years and university-sponsored funding cap of five years.

Childbirth and Adoption Accommodation

This policy is intended to assist graduate students who are new parents. It is a supplement to the six week medical separation policy. Unlike the medical separation policy that covers any medical condition, this accommodation policy addresses a single set of circumstances: new parenthood. It is not a leave of absence; it is an accommodation. Students maintain their standing as students and are eligible for financial support.

All full-time students in good academic standing who are primary and full-time caregivers of a newborn child or a child less than five years old newly placed in the home are eligible. Students must have completed one semester and have been registered and enrolled for at least another semester prior to the request. Students may make use of the policy up to two times provided that at least one semester of full-time enrollment occurs between requests. Parents who are not the primary and full-time caregiver may apply for a leave of absence, but are not eligible for accommodation.

This accommodation is intended to provide relief from full-time responsibilities while providing continuing financial support. It differs from a leave of absence in three ways.

First, in a leave of absence students are relieved of all responsibilities. If a student wishes to devote full-time care to a newborn or a newly adopted child, the student should request a leave of absence. Under this accommodation, students are relieved of full-time graduate studies/duties (such as teaching and research), of official academic exams (e.g., oral candidacy exams, master’s comprehensives, etc), and of coursework deadlines for one semester (16 weeks) during or immediately following the semester in which the birth or adoption occurs (Students may take incompletes in courses or take a reduced course load; departments may still define these students as full-time, despite the credit hour reduction). The choice of the semester is the student’s. Students are expected to register and enroll full time and to remain engaged, if at a reduced level. Departments are encouraged to be as flexible as possible with the student seeking accommodation. This parent’s assignments should allow for maximum flexibility in his/her schedule during the first six weeks after the child arrives. The amount of engagement and reduction in workload during the entire accommodation period (both prior to and after the birth or adoption of a child) should be specified in writing prior to the onset of the accommodation period. This agreement should then be approved and signed by the student, the student’s adviser, the departmental DGS and the chair or the graduate studies committee, and sent to the associate dean of students in the Graduate School for review. In the event that the student and department cannot reach a decision about an appropriate workload, the associate dean of students in the Graduate School should be consulted. The details of the agreement may be reassessed and revised after childbirth or adoption. Accommodated students should submit a brief written progress report to their advisers at the end of the accommodation period.

Second, a leave of absence stops the student’s eligibility clock; the accommodation extends it. In the case of a leave, a

student still has eight years to fulfill all requirements and must meet all of the normal program and Graduate School deadlines. In the case of accommodation the student’s academic eligibility clock is extended by a semester, effectively adding a semester to the student’s eligible time to meet all degree requirements.

Third, students who elect to take a leave of absence forego financial support from the University. Students who elect to take accommodation will continue to receive financial support (see below) and the health insurance subsidy.

If, after the end of the accommodation period, the student wishes to have more time, he/she can apply for a leave of absence. The clock will stop, but so will funding. Students on leave may still enroll in the health insurance plan at their own expense.

Students who are fully-funded and who have not yet completed their fifth year of study will continue to be supported financially. They will continue to receive a stipend at the same level for the length of the accommodation (see below for possible exceptions), receive a tuition scholarship, and receive the health insurance subsidy from the Graduate School. There are two important limits: the total number of years of funding will not be extended and funding is for the academic year only.

Teaching assistants will be relieved of all teaching duties (students for whom serving as a TA is a requirement must fulfill the requirement in a later semester). As stated above, they must continue to be intellectually engaged in the activities of the department and their research. Details of this engagement should be worked out in writing between the student and the department prior to the start of the accommodation.

Students on research grants who wish to continue to receive full funding must adhere to the following guidelines. If the student is funded by a grant, the level of support is determined by the granting agency. If the student is expected to devote 50% or 75% of his/her former

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working hours to his/her research, the grant will pay 50% or 75% of her former stipend, assuming he/she works at full capacity during those reduced hours. The Graduate School will make up the difference between what the grant pays and the former stipend, up to 50% of the former stipend. If the grant funding is reduced below 50%, the Graduate School will still pay 50%.

Details of the final arrangement should be worked out in writing between the student and the department prior to the start of the accommodation.

If a student is funded by an external fellowship, the level of support is determined by the foundation. If the fellowship is reduced or eliminated as a result of a new child, the Graduate School will fund up to 50% of the student's former stipend under the fellowship. Questions should be directed to the associate director of budget and operations in the Graduate School.

Parental relief cannot be combined with other funding.

Students pursuing a terminal master's degree and students who have completed their fifth year of study are eligible for the accommodation only, not for funding.

Eligible students must notify their adviser, director of graduate studies and the associate dean of students in the Graduate School of their intent to use the accommodation policy at least 60 days prior to the expected date of childbirth or adoption. A form is available on the Graduate School website for this purpose.

Policy for Pregnant Graduate Students in Labs

Exposure to certain chemicals, biological agents and radiation has proven harmful to fetuses, especially in the first three months. For those pregnant graduate students whose research requires them to be present in laboratories where there is a potential biological, chemical, or radiation risk to her unborn child, the Graduate School strongly recommends that they immediately inform their advisers of their

pregnancy, and then contact the Office of Risk Management. This office is dedicated to providing professional advice in the areas of safety, occupational health, environmental protection and risk management. Safety professionals can advise the student (and the adviser) about the effects of harmful materials on the development of the fetus, particularly in the critical first three months, and recommend that the woman avoid the laboratory for a certain period of time.

Withdrawal from the Program

To withdraw from the University before the end of the semester, a student must inform the department and the Graduate School as well as complete the notice of withdrawal. (See http://registrar.nd.edu/Separation_Form/form.html.) For information on refunds, refer to "Tuition and Expenses."

Upon approval of the withdrawal, the University enters a grade of W for each course in which the student was registered. If a student drops out of the University without following the procedure described above, a grade of F is recorded for each course.

The credit for any course or examination will be forfeited if the student interrupts his or her program of study for five years or more.

The University reserves the right to require the withdrawal of any student when academic performance, health status, or general conduct may be judged clearly detrimental to the best interests of either the student or the University community.

Access to Computing Services

The University of Notre Dame NetID accounts and related services are intended for faculty, staff, and currently registered students. "A student must register and complete the ND Roll Call process at the dates and times announced by the Registrar" (Academic Code 4.1). A student who fails to register and complete the ND Roll Call process by the announced date will forfeit the right to access his or her NetID account and related services. University computing resources supplied by way of the NetID are normally available

to a student for up to 60 days after his or her graduation date. A student granted a leave-of-absence would normally retain access to University computing services for up to two semesters. A student who is separated from the University due to an academic suspension, academic dismissal, or withdrawal will no longer have access to University computing services, unless an extension has been approved by the dean of his or her college. A student attending Notre Dame for the summer only, with a non-degree seeking status, will normally retain access to University computing service for up to 60 days after the August graduation date. A student who is separated from the University for other reasons will no longer have access to University computing services.

Registration and Courses

Maximal Registration

During each semester of the academic year, a graduate student should not register for more than 15 credit hours of graduate courses, i.e., the 60000 through 90000-level courses. In the summer session, a graduate student should not register for more than 10 credit hours.

Course Numbers

Courses numbered 60000 – 69999 are typically taken by graduate students.

Qualified advanced undergraduates may be admitted to these classes with the permission of the instructor and the approval of the chair. Courses numbered 70000 and above are advanced graduate courses open only to students who have completed the prerequisites.

The advanced undergraduate courses numbered 40000 – 59999 may, with the approval of the department chair and the Graduate School, be taken to satisfy up to 10 hours of graduate credit requirements. Grades in these courses will count toward the student's G.P.A.. Departments may place additional constraints on the use of 40000- and 50000-level courses to meet their degree requirements.

No graduate credit is allowed for courses below the 40000 level.

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Add/Drop Policy

A student may add courses through the first six class days of the semester. A student may add courses after this time only on recommendation of the department and with approval of the Graduate School.

A student may drop courses at their discretion through the first six class days of the fall or spring semester. To drop a course after this period and up to the midsemester point (see the Graduate School calendar for the exact date), a student must have the approval of the chair of the department offering the course, of his or her adviser, and of the Graduate School; however, no tuition adjustment will be made after the sixth class day of the fall or spring semester. A course may be dropped after the midsemester point only in cases of serious physical or mental illness. Courses dropped after this period will be posted on the student's permanent record with the grade of W.

A course taken for credit can be changed to an audit course after the mid-semester point only in cases of serious physical or mental illness.

Grades

Listed below are graduate grades and the corresponding number of quality points per credit hour.

A	4
A-	3.667
B+	3.333
B	3
B-	2.667
C+	2.333
C	2
F	0
I	0 (Until Incomplete is removed)
NR	Not reported
S	0 Satisfactory
U	0 Unsatisfactory
V	0 Auditor (graduate students only)
W	0 Discontinued with permission

Quality point values are used to compute the student's G.P.A. The G.P.A. is the ratio of accumulated earned quality points to the accumulated earned semester credit hours. G.P.A. computation takes

into account those grades earned in Notre Dame graduate courses or in 40000- and 50000-level courses by students with graduate status at Notre Dame. For courses taken outside the University, the grade will not be included in the G.P.A. computation.

The grades of C- and D are not awarded in the Graduate School.

A student receives the temporary grade of I when, for acceptable reasons, he or she has not completed the requirements for a 60000- or higher-level graduate course within the semester or summer session. No grade of I can be given for courses below the 60000 level or to graduating students in the final semester or final summer session of a terminal degree program.

The student then must complete the course work for a grade prior to the beginning of the final examination period of the next semester in which the student is enrolled. If a student receives an I (Incomplete) for a summer session course, he or she must complete the course work for a grade before the final examination period begins for the next semester or summer session (whichever comes first) in which the student is enrolled.

The University temporarily computes this grade as the equivalent of an F in calculating the G.P.A. When the student fulfills the above requirements, the I is replaced by the new grade. Faculty will be given 30 days from the last day of classes to turn in the grade change form to the Graduate School. Should the student not complete the course work as required, the I will convert to an F on the transcript.

The department and the Graduate School will review a student who receives more than one I in a semester or an I in two or more consecutive semesters, to determine his or her eligibility for continued support and enrollment.

The grades of S and U (Satisfactory and Unsatisfactory) are used in courses without semester credit hours, as well as in research courses, departmental seminars, colloquia, workshops, directed studies, field education, and skills courses. These courses, if given the grade of S, do figure in a student's earned semester credit-hour total but do not figure in the computation of the G.P.A.

A grade of U will not count toward the student's earned semester credit-hour total, nor will it figure in the computation of the G.P.A.

The grade of V (Auditor) does not have quality-points attached to it. It is the only grade available to the registered auditor. The audit must be requested before the sixth class day of the semester. The audited class is made part of the student's permanent record, and the auditor should attend the course throughout the entire semester. The grade of V cannot be changed to a credit-earning grade. Information about declaring an audit is posted at <http://registrar.nd.edu/audit.shtml>.

The grade of W (Discontinued with permission) is given for a course that a student is allowed to drop after the mid-semester point.

Transfer Credits

A department may accept course work completed at another accredited university toward meeting its degree requirements. A student may transfer credits earned at another accredited university only if: (1) the student is in degree status at Notre Dame; (2) the courses taken are graduate courses appropriate to the Notre Dame graduate program and the student had graduate student status when he or she took these courses; (3) the courses were completed within a five-year period prior to admission to a graduate degree program at Notre Dame or while enrolled in a graduate degree program at Notre Dame; (4) grades of B (3.0 on 4.0 scale) or better were achieved; and (5) the transfer is recommended by the department and approved by the Graduate School.

These five requirements also apply to the transfer of credits earned in another program at Notre Dame.

The University considers a request for credit transfer only after a student has completed one semester in a Notre Dame graduate degree program and before the semester in which the graduate degree is conferred. The university of origin must submit transcripts directly to the Notre Dame Graduate School. Credits not earned on the semester system, such as trimester and quarter-hour credits, will be transferred on a pro rata basis.

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A student transferring from an unfinished master's program may not transfer more than six semester credit hours into either a Notre Dame master's or Ph.D. program.

If the student has completed a master's or Ph.D. program, he or she may transfer up to nine semester credit hours to a Notre Dame master's program and up to 24 semester-credit hours to a Notre Dame Ph.D. program.

Occasionally, a student may need to do dissertation research at another institution. Normally, the student would register for the appropriate number of credit hours of research at Notre Dame. If the student does not enroll at Notre Dame and expects to count research hours earned elsewhere toward the Notre Dame degree, the student must have the approval of the department and the Graduate School in advance. The University requires similar prior approval for formal courses taken elsewhere and applied to the degree program. Twenty-four credit hours, including research credit hours, is the maximum acceptable for transfer into a Notre Dame doctoral program.

No grades of transferred courses are included in the student's G.P.A.

Academic Integrity

Integrity in scholarship and research is an essential characteristic of our academic life and social structure in the University. Any activity that compromises the pursuit of truth and the advancement of knowledge besmirches the intellectual effort and may undermine confidence in the academic enterprise. A commitment to honesty is expected in all academic endeavors, and this should be continuously emphasized to students, research assistants, associates, and colleagues by mentors and academic leaders.

The procedures for ensuring academic integrity in the Graduate School are distinct from those in the Undergraduate Code of Honor. The following apply to both degree-seeking and non-degree-seeking students.

Violations of academic integrity may occur in classroom work and related academic functions or in research/scholarship

endeavors. Classroom-type misconduct includes the use of information obtained from another student's paper during an examination, plagiarism, submission of work written by someone else, falsification of data, etc. Violation of integrity in research/scholarship is deliberate fabrication, falsification, or plagiarism in proposing, performing, or reporting research or other deliberate misrepresentation in proposing, conducting, reporting, or reviewing research. Misconduct does not include errors of judgment, errors in recording, selection, or analysis of data, differences in opinions involving interpretation, or conduct unrelated to the research process. Misconduct includes practices that materially and adversely affect the integrity of scholarship and research.

Any person who has reason to believe that a violation of this policy has occurred shall discuss it on a confidential basis with the department chair or director of the appropriate institute. If a perceived conflict of interest exists between the chair/director and the accused, the next highest academic officer shall be notified of the charge. The chair/director shall evaluate the allegation promptly. If it is determined that there is no substantial basis for the charge, then the matter may be dismissed with the fact of dismissal being made known to the complainant and to the accused if he or she is aware of the accusation. A written summary of charges, findings, and actions shall be forwarded to the dean of the Graduate School as a matter of documentation. Otherwise, the chair will select an impartial panel consisting of three members, one of whom may be a graduate student, to investigate the matter. The chair will inform the accused of the charges. The panel will determine initially whether to proceed directly to a hearing to further investigate the case, or to dismiss the charges. If the panel decides to proceed directly to a hearing, the hearing will be held within 10 days of the original notification. If the panel decides that further investigation is necessary, it shall immediately notify the chair. If it decides that a hearing is not warranted, all information gathered for this investigation will be destroyed. The utmost care will be taken to minimize any negative consequence to the accused.

The accused party must be given the opportunity to respond to any and all allegations and supporting evidence at the hearing. The response will be made to the appointed panel. The panel will make a final judgment, recommend appropriate disciplinary action, and report to the chair in writing. The report will include all of the pertinent documentation and will be presented within 30 days after meeting with the accused. Copies of the report are to be made available to the accused, the chair, and the dean of the Graduate School. If a violation is judged to have occurred, this might be grounds for dismissal from the University; research/scholarship violations might be reported to the sponsor of the research effort (e.g., NSF, NIH, Lilly Foundation, etc.), if appropriate.

If the student chooses to appeal, he or she must address the appeal in writing to the dean of the Graduate School within 10 days. The student has the right to appear before the dean or his or her delegate. The dean may decide to appoint an ad hoc committee to handle the appeal, if deemed necessary.

Violations of academic integrity by individuals who are not students are governed by different rules; students who are working on externally sponsored programs may also be covered by sponsor-mandated rules. Contact the Office of Research's director of research compliance for further information.

The penalty for a student who admits wrongdoing should be determined by the graduate committee of the student's department or program.

Academic Ombudsperson

The dean of the Graduate School has appointed an academic ombudsperson in the Graduate School to be available to graduate students who want to confidentially discuss problems they are having in their programs. The ombudsperson can provide the student with options for resolving the problem. The Graduate School's academic ombudsperson is the associate dean of students.

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Grievance and Appeal Procedures

Students follow the grievance and appeal procedures of the department in which they are studying. Where department procedures are not clear, students contact the department chair and/or the director of graduate studies. Appeals beyond the department are made directly to the dean of the Graduate School. Instructions for how to appeal to the dean can be found online on the Graduate School's website.

Requirements for the Master's Degree

In addition to the following Graduate School requirements, individual departments may have higher standards. Students are expected to know their departmental requirements.

Credit Hours

The number of credit hours of course work for the master's degree is specified by the student's department. Students in a research program must also complete the research requirements of the department. (See also "Transfer Credits," above.)

Residency

The minimum residency requirement for the master's degree is registration in full-time status for one semester during the academic year or for one summer session.

Foreign Language Requirement

The Graduate School does not require foreign language reading proficiency for the master's degree. However, some departments do have this requirement. Students should consult their departments concerning this requirement.

Degree Eligibility

Failure to complete all requirements for the master's degree within five years results in forfeiture of degree eligibility.

A master's program that is pursued during the summer and the academic year must also be completed within five years.

A student attending summer session only must complete all requirements within seven years.

Thesis Directors

Each student is assigned an adviser from the time of enrollment. This may initially be the director of graduate studies, but an individual adviser or thesis director will be chosen as soon as practicable, following the department's policies.

Advisers and thesis directors are normally chosen from the teaching and research faculty of the student's department. There also may be one co-director chosen from the faculty outside (or within) the student's department. In exceptional cases, a student may choose a thesis director from the Notre Dame teaching and research faculty outside the department. Arrangements for extra-departmental directors or co-directors must be consistent with departmental policies and must be approved by the department.

Master's Examination

By the end of the term following completion of the course work required by the department, the degree candidate must have taken an oral and/or written master's examination demonstrating mastery in his or her field. Failure in either one or both parts of the examination results in automatic forfeiture of degree eligibility, unless the department recommends a retake. If a retake is recommended, it must be completed by the end of the following semester. The Graduate School allows only one retake of the master's examination.

Some departments have an equivalent requirement in lieu of the master's examination. Students are advised to be cognizant of their respective departmental requirements with regard to the master's examination or its substitute.

A doctoral student may receive the master's degree without taking the master's examination on the recommendation of the department and completion of (a) the course work required by the department for the master's degree and (b) all written parts of the doctoral candidacy or Ph.D. qualifying examination. Departments may have additional criteria or may choose not to offer a master's degree in this manner; students should consult the departmental guidelines.

Admission to Candidacy

To qualify for admission to candidacy, a student must be in a master's degree program. He or she must be enrolled in the program and must maintain a minimum cumulative G.P.A. of 3.0 in approved course work. A student who seeks admission to candidacy in a research master's program must also demonstrate research capability and receive departmental approval of his or her thesis proposal.

Admission to candidacy is a prerequisite to receiving any graduate degree. *It is the student's responsibility to apply for admission by submitting the appropriate form to the Graduate School office through the department chair. The applicable deadline is published in the Graduate School calendar.*

Thesis Requirement

The thesis is the distinctive requirement of the research master's program. With the approval of his or her adviser, the student proposes a thesis topic for departmental approval. The approved topic is researched and the results presented under the supervision of a thesis director.

Once the thesis director has approved the thesis for distribution to the readers, the candidate must deliver print or PDF copies, depending on the preferences of the program, to the two official readers appointed by the department. Readers are appointed from among the regular teaching and research faculty of the student's department, and the thesis director may not be one of the official readers. The appointment of a reader from outside the student's department must have the department's approval. Each reader must unconditionally approve the thesis and the department should promptly report the results to the Graduate School.

Submitting the Formal Thesis

To receive the degree at the next graduation, the research master's candidate must submit the thesis to the Graduate School on or before the deadline published in the Graduate School calendar. Candidates should be cognizant of deadlines for graduation established by the Graduate School and the department.

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To be accepted by the Graduate School, the thesis should be prepared according to the formatting guidelines established by the Graduate School and ProQuest. These guidelines can be found online at the Graduate School's website, <http://graduateschool.nd.edu>. For formatting guidance beyond these guidelines, students should follow the formatting custom in their field.

When the thesis is given to the readers, the candidate should also give a complete copy to the Graduate School, where it will be reviewed for compliance with the formatting requirements. This preliminary copy may be submitted electronically as a PDF or delivered as a printed manuscript. The formatting editor will review the layout of the document and advise the student of any required changes.

The formal thesis must be submitted in electronic form as a PDF uploaded to the Hesburgh Library's Electronic Thesis and Dissertation (ETD) website at <http://etd.nd.edu>.

In addition to the formal PDF copy of the thesis, students must submit the electronic placement form and two printed title pages, signed by the thesis director(s); the signed title pages indicate that the director has reviewed and approved the final thesis for formal submission. Should a candidate wish to have the thesis microfilmed by ProQuest, the microfilming agreement and service fee are also required.

Only the official submission will be accepted by the Graduate School.

Candidates must check with their departments for any additions to the Graduate School requirements.

Requirements for the Doctor of Philosophy Degree

The goal of the University in its Ph.D. programs is to develop productive scholarship and professional competence in its students. In addition to a broad acquaintance with the historical and contemporary state of learning, the University encourages its students and faculty to make contributions to the advancement of their respective fields.

In addition to the following Graduate School requirements, individual departments may require higher standards. Students are expected to know their department's requirements.

Credit Hours

The number of credit hours of formal courses, directed studies, and research is specified by the student's department. (See also, "Transfer Credits," above.)

Residency

The minimum residency requirement for the Ph.D. degree is full-time status for four consecutive semesters.

Foreign Language Requirement

This requirement varies from department to department, in both the choice of language and the degree of proficiency required. Students should consult their department concerning this requirement.

Ethics Workshop Requirement

All Ph.D. students who begin their program of studies in or after fall 2011 must participate in an intensive three-hour workshop on ethics. This workshop complements the existing discipline-specific efforts offered by departments and colleges, and augments the responsible conduct of research compliance component with a broader interdisciplinary discussion.

Award of Master's Degree to Doctoral Students

A doctoral student may receive the master's degree without taking the master's examination on the recommendation of the department and completion of: (a) the course work required by the department for the master's degree and (b) all written parts of the doctoral candidacy or Ph.D. qualifying examination. Departments may have additional criteria, or may choose not to offer a master's degree in this manner; students should consult the departmental guidelines.

Degree Eligibility

The student must fulfill all doctoral requirements, including the dissertation and its defense, within eight years from the time of matriculation. Failure to complete any of the Graduate School or departmental

requirements within the prescribed period results in forfeiture of degree eligibility.

Advisers and Dissertation Directors

Each student is assigned an adviser from the time of enrollment. This may initially be the director of graduate studies, but an individual adviser or dissertation director will be chosen as soon as practicable, following the department's policies.

Advisers and dissertation directors are normally chosen from the teaching-and-research faculty of the student's department. There also may be one co-director chosen from the faculty outside the student's department. In exceptional cases, a student may choose a dissertation director from the Notre Dame teaching and research faculty outside the department. Arrangements for extra-departmental directors or co-directors must be consistent with departmental policies and must be approved by the department.

Candidacy Examination

Normally, the candidacy examination is passed, and the dissertation topic approved, by no later than the student's eighth semester of enrollment. Failure to meet this deadline may lead to discontinuation of Graduate School funding.

The examination consists of two parts: a written component and an oral component. The written part of the examination normally precedes the oral part. It is designed, scheduled, and administered by the department. The oral part of the examination is normally taken after the completion of the course work requirement. The oral part, among other things, tests the student's readiness for advanced research in the more specialized area(s) of his or her field. In total, the examination should be comprehensive. Successful passage indicates that, in the judgment of the faculty, the student has an adequate knowledge of the basic literature, problems, and methods of his or her field. If the proposal defense is part of the oral, it should be a defense of a proposal and not of a completed dissertation.

A board of at least three voting members nominated by the department and appointed by the Graduate School adminis-

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ters the oral part of the examination. (The department may require larger committees.) Normally, this board has the same membership as the student's dissertation committee. Board members are normally chosen from the teaching and research faculty of the student's department, although if approved by the department, a faculty member from another department or another institution may also be appointed to the committee.

Prior to the examination, committees should review departmental regulations for the conduct of the exam, the process of the exam, and voting procedures. Before the exam begins they should inform the candidate of the process of the exam. After completion of the examination, the candidate should be asked to leave the room. Discussion of the candidate's performance should then commence, with the committee ultimately voting on whether that performance merits a passing or failing of the exam. On a board of three, two votes are required to pass. On a board of four, three votes are required to pass. If a department chooses to have five members, four votes are required to pass. A written report of the results of the voting is sent immediately to the Graduate School by a member of the committee, normally the adviser.

In case of failure in either or both parts of the doctoral candidacy examination, the department chair, on the recommendation of a majority of the examiners, may authorize a retake of the examination if this is permitted by departmental regulations. An authorization for retake must be approved by the Graduate School. A second failure results in forfeiture of degree eligibility and is recorded on the student's permanent record.

A candidate has the right to appeal the result of the exam to the dean of the Graduate School *on procedural grounds only, not on its substance or on his/her performance*. If a retake is granted, an outside monitor appointed by the Graduate School must be present.

Admission to Candidacy

Admission to candidacy is a prerequisite to receiving any graduate degree. To qualify for admission to doctoral candidacy, a student must:

1. be in a doctoral program;
2. have been enrolled in the program for four consecutive semesters;
3. complete the departmental course work requirement with a cumulative average of 3.0 or better;
4. pass the written and oral parts of the doctoral candidacy examination, and have the dissertation proposal approved (if this is not part of the candidacy exam) by the end of the eighth semester of enrollment; and
5. satisfactorily complete any departmental language requirements.

It is the responsibility of the student to apply for candidacy admission by submitting the appropriate form to the Graduate School office through the department chair.

The Dissertation

In continuing consultation with the dissertation director, the candidate explores research areas in his or her field to formulate a dissertation proposal. The methods of approval of the dissertation proposal are determined by the individual departments.

The department chair or director of graduate studies will appoint a dissertation committee consisting of the dissertation director and at least two readers. (The department may require larger committees.) Normally, the committee is drawn from the membership of the student's oral candidacy board. The student's department must approve the appointment of committee members from outside the department and/or the University.

The candidate delivers typed copies of the finished dissertation, signed by the director, to the department chair for distribution to the readers.

At the same time, the candidate should also give a complete copy to the Graduate School, where it will be reviewed for compliance with the formatting guidelines. (See "Submitting the Dissertation" below.)

Readers normally have two to four weeks to read the dissertation, decide whether it is ready to be defended, and so indicate on the appropriate form to the Graduate School. Reader approval of the disserta-

tion for defense does not imply reader agreement or support; it implies reader acknowledgment that the dissertation is an academically sound and defensible scholarly product. Only a dissertation that has been unanimously approved for defense by the three readers may be defended.

Even though the dissertation has been approved for defense, revisions may be required. If defects in the dissertation come to light at the defense, the candidate may be asked to revise the dissertation before it is accepted by the Graduate School and the degree is conferred. In that case, it will be the responsibility of the dissertation director, or such person as the committee may appoint, to report to the Graduate School that such revisions have been completed satisfactorily.

Defense of the Dissertation

In defending the dissertation, the doctoral candidate supports its claims, procedures, and results. The defense is the traditional instrument that enables the candidate to explore with the dissertation committee the dissertation's substantive and methodological force. In this way, the candidate and the committee confirm the candidate's scholarly grasp of the chosen research area.

Prior to the examination, committees should review departmental regulations for the conduct of the defense, the process of the defense, and voting procedures. Before the defense begins, the committee should inform the candidate of the defense process. After completion of the examination, the candidate must be asked to leave the room. Discussion of the candidate's performance should then commence, with the committee ultimately voting on whether the performance merits a passing or failing of the defense. On a board of three, two votes are required to pass. On a board of four, three votes are required to pass. If a department chooses to have five members, four votes are required to pass. A written report of the results of the voting is sent immediately to the Graduate School by a member of the committee, normally the adviser.

In case of failure of the defense, on the recommendation of a majority of the examiners, another opportunity to defend may be authorized if this is permitted by

departmental regulations. An authorization for a second defense must be approved by the Graduate School. A second failure results in forfeiture of degree eligibility and is recorded on the candidate's permanent record.

A candidate has the right to appeal the result of the defense to the dean of the Graduate School *on procedural grounds only, not on its substance or on his/her performance*. If a retake is granted, an outside monitor appointed by the Graduate School must be present.

Submitting the Dissertation

To receive the degree at the next graduation, the doctoral candidate who has successfully defended his or her dissertation must submit it to the Graduate School on or before the deadline published in the Graduate School calendar. Candidates should be cognizant of deadlines for graduation established by the Graduate School and the department.

To be accepted by the Graduate School, the dissertation should be prepared according to the formatting guidelines established by the Graduate School and ProQuest. These guidelines can be found online at the Graduate School's website, <http://graduateschool.nd.edu>. For formatting guidance beyond these guidelines, students should follow the formatting custom in their field.

When the dissertation is given to the readers, the candidate should also give a complete copy to the Graduate School, where it will be reviewed for compliance with the formatting requirements. This preliminary copy may be submitted electronically as a PDF or delivered as a printed manuscript. The formatting editor will review the layout of the document and advise the student of any required changes.

After successfully defending the dissertation and making any necessary text and formatting changes, the candidate must submit the final dissertation to the Graduate School electronically by uploading one complete PDF copy to the Hesburgh Library's Electronic Dissertation and Thesis database at <http://etd.nd.edu>. Only the official electronic submission will be accepted by the Graduate School.

In addition to the dissertation file, two printed and signed title pages, indicating the adviser's approval of this formal dissertation, must be submitted to the Graduate School,

along with any other necessary forms specified on the online submission checklist.

The dissertation, title pages, payment and submission forms must be submitted to the Graduate School by the deadline specified.

The Graduate Council requires that all doctoral dissertations be microfilmed by ProQuest Information and Learning. In addition to any other required forms or surveys, the candidate must submit a completed and signed Microfilming Agreement form to the Graduate School's dissertation editor, who handles this publication requirement for the candidate.

Financial Information

Tuition and Expenses

Please note: The following tuition, fees, housing, and living costs are for the academic year 2011–2012. Prospective applicants and students are urged to find out the exact costs at the time of application or registration.

Tuition

Full-time for a degree-seeking student is defined as nine credit hours per semester.

For the full-time graduate student, the tuition for the academic year 2011–2012 is \$40,800. Tuition for the part-time student is \$2,267 per semester credit hour. Non-resident tuition is \$200 per semester.

A full-time graduate student may audit courses without charge during the academic year. Any course taken or audited in the summer session will be charged the full price.

Academic Year Fees

- Technology Fee: \$250*
- Health Center Access Fee: \$150**
- Graduate Student Activity Fee: \$65***

** The technology fee provides partial funding for the University's enterprise-wide technology infrastructure, which provides all students access to the Internet, e-mail, course ware, campus clusters, ResNet, and a wide array of the latest software. This fee provides for the growth in student services, such as course and degree requirements, Web Registration, and value-added Internet-related capabilities.*

*** The health center access fee provides students access to all services at the University Health Center and University Counseling Center, including 24-hour medical care and counseling/mental health assistance, and alcohol and drug education programs, as well as health education and wellness programs.*

**** Graduate Student Activity Fee is the responsibility of the student.*

Financial Arrangements

Tuition and fees, as well as any required deposits, are payable in advance at the beginning of each semester. Please note that Notre Dame does not accept credit cards for payment of tuition and fees. Tuition and/or fees not covered by scholarship are the responsibility of the student.

A student may not register for a new semester or receive transcripts, certificates, diploma, or any information regarding his or her academic record until all prior accounts have been settled in full.

Withdrawal Regulations

Any student in the Graduate School who at any time within the school year wishes to withdraw from the University should contact the Office of the Registrar. To avoid failure in all classes for the semester and in order to receive any financial adjustment, the withdrawing student must obtain the appropriate clearance from the dean of his or her college and from the assistant vice president for residence life.

On the first day of classes, a full tuition credit will be made. Following the first day of classes, the tuition fee is subject to a prorated adjustment/credit if the student: (1) withdraws voluntarily for any reason on or before the last day for course discontinuance at the University; or (2) is suspended, dismissed, or involuntarily withdrawn by the University, for any reason, on or before the last day for course discontinuance at the University; or (3) is later obliged to withdraw because of protracted illness; or (4) withdraws involuntarily at any time because of military service, provided no credit is received for the classes from which the student is forced to withdraw.

Upon return of the student forced to withdraw for military service, the University will credit the student's account for that portion

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of tuition charged for the semester in which he or she withdrew and did not receive academic credit.

Room and board charges will be prorated throughout the entire semester.

Students receiving University and/or Federal Title IV financial assistance who withdraw from the University within the first sixty percent (60%) of the semester are not entitled to the use or benefit of University and/or Federal Title IV funds beyond their withdrawal date. Such funds shall be returned promptly to the entity that issued them, on a pro rata basis, and will be reflected on the student's University account.

This withdrawal regulation may change subject to federal regulations. Examples of the application of the tuition credit calculation are available from the Office of Student Accounts upon request.

Housing

Phone: (574) 631-5878
Web: <http://orlh.nd.edu>

University housing for married, families and single students is available on or adjacent to the campus.

Accommodations for students with families are available in University Village, a complex of 100 two-bedroom apartments (limited four-bedroom apartments) with washer/dryer, renting for \$520 - \$785 per month, excluding electricity. The Cripe Street Apartments, 24 one-bedroom units, are available from \$625 per month, excluding electricity. A deposit of one month's rent is required.

Accommodations for approximately 140 full-time, degree-seeking single graduate men and women are available in the 36-unit O'Hara-Grace Graduate Residence adjacent to the campus. Each apartment has a kitchen, one-and-one-half baths, living, and bedroom accommodations for four students, renting for \$490 a month (rent includes utilities, local phone and internet connection). Many general and departmental activities are held in Wilson Commons, a center for graduate students located next to the townhouses. The Fischer Graduate Housing apartment complex offers apartments with a kitchen, one full bath, and living and bedroom accommodations for two single students, renting for

\$595 a month (rent includes utilities, local phone and internet connection). A deposit equal to one month's rent is required. Deductions may be set up for any student receiving a stipend. This is handled at the Office of Student Accounts, 100 Main Building, (574) 631-7113.

Health Insurance

Phone: (574) 631-6114
Web: <http://uhs.nd.edu>

The student will be automatically enrolled in the University-sponsored plan, and the charge for the premium will be placed on the student's account prior to the start of the academic year. At the beginning of each academic year, the opportunity is provided to show proof of comparable health insurance coverage. If University Health Services accepts this coverage, the charge for the University sponsored-plan will be removed from the student's account by University Health Services.

Information regarding the University-sponsored plan is mailed to the student's home address in July. Additional information is available in University Health Services by contacting the Office of Insurance and Accounts at (574) 631-6114 or referring to the UHS website: <http://uhs.nd.edu>.

The cost of the student premium for the 2011–2012 academic year (effective August 15, 2011, to August 14, 2012) is \$1,665. The insurer for the student health insurance policy is Aetna.

Premium information for dependent coverage may be found on the University Health Services website.

The Office of Student Accounts will offer students receiving a stipend from the University the option of paying the premium through deductions from the academic year stipend payments.

Health Insurance Subsidy Program

The Graduate School has a program to subsidize the student premium of University-sponsored student health insurance. The subsidy for 2011–2012 is \$1,175 for degree-seeking students on full stipend support for both the Fall 2011 and Spring 2012 semesters. Students will receive a \$588 subsidy if they are on full stipend support for only one semester. Eligible students who enroll in the

University-sponsored student health insurance between August 15, 2011 and August 14, 2012 and are not charged the full \$1,665 will receive a subsidy pro-rated based on the premium amount.

Eligibility

Doctoral students must be in their first eight years of study to be eligible for a health subsidy. Masters' students must be in their first five years of study to be eligible for a health subsidy. A full stipend is defined as the minimum department-based stipend for each program. Students should contact their academic department with questions about their subsidy eligibility or funding levels. The Graduate School provides the departments with the subsidy level and eligibility criteria each year.

Procedure

No application for the subsidy is required. University Health Services, the Graduate School, Financial Aid and Student Accounts will automatically process the subsidy for eligible students in October. An audit will be performed early in the spring semester to add or increase the subsidy for those students who were not eligible for the full subsidy at the beginning of the academic year.

Tax Obligation

Because students receiving a stipend are not classified as employees of the University, the health insurance subsidy is a taxable benefit. In this case, however, it is regarded as 'taxable but not reportable.' The University will not withhold money from a student's pay, nor will it report the subsidy to the Internal Revenue Service. Students who receive the subsidy are obligated to report it on their tax returns.

Worker's Compensation Insurance

Students injured while performing assigned duties in University laboratories are covered by worker's compensation insurance as if they were Notre Dame employees. During a period of temporary inability to perform duties as a result of such injuries, workers compensation provides for continuation of 66.6% (to state limits) of usual income after seven days have passed. Income beyond the limits set by workers compensation is subject to the discretion of department chairs where support is from funds allocated by the Graduate School. Income beyond workers compensation is subject to the discretion of principal investigators and the guidelines of external sponsors where support is from funds provided by research grants.

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Travel Accident Insurance

Students injured while traveling to present at conferences or on other University business which has been approved by the student's department chair are covered by Notre Dame travel accident insurance. Compensation in set amounts is available for death or loss of arms or legs. Medical expenses in excess of other insurance are paid up to a maximum dollar amount.

Travel Reimbursement

Reimbursement is subject to University travel policy, which can be found on the Controller's website, under Policies and Procedures: <http://controller.nd.edu>

Applications for the following professional development funds can be found on the Resources for Current Students page on the Graduate School website at <http://graduateschool.nd.edu>.

- GSU Conference Presentation Grant Program
- Zahm Research Travel Fund
- Joseph F. Downes Memorial Fund
- Notebaert Professional Development Fund

Financial Support

Exact amounts for the following aid will vary with the type of support and the department. Exact figures can be obtained from the particular department to which the student has been admitted. Initiation and continuation of financial support depends on the student's maintaining good academic standing.

Only full-time, degree-seeking students are eligible for support. Recipients of financial support such as assistantships or fellowships usually may not accept additional appointments. Rare exceptions are made only on the recommendation of the respective department.

Categories of Support

The University offers four types of support: fellowships, teaching and research assistantships, and tuition scholarships. Students may receive one type of support or a combination of types.

Fellowships

Fellowships provide a tuition scholarship and a stipend for full-time study by students admitted to graduate programs. The department usually provides tuition and stipend

support for the student in good standing once the fellowship expires.

Applicants for admission are automatically considered by their academic department for all of the following University, endowed, and awarded fellowships.

Select Fellowships

The Graduate School awards 12-month Presidential, Premier, and Special Fellowships to highly qualified first-time applicants who are nominated for the awards by departmental admissions committees. Some fellowships require U.S. citizenship.

Descriptions for these fellowships can be found on the Graduate School website at <http://graduateschool.nd.edu/admissions/financial-support/prestigious-fellowships>.

Assistantships**Graduate Assistantships**

Graduate assistantships are available for qualified students in all doctoral programs.

Research Assistantships

Research assistantships provide support to qualified recipients under research programs sponsored by government, industry, or private agencies.

Doctoral students are eligible for fellowships and assistantships from the Graduate School during their first six years of study. Masters' students are eligible for fellowships and assistantships from the Graduate School during their first three years of study. There is no eligibility limit for doctoral or masters' students receiving fellowships and assistantships funded from other sources.

Tuition Scholarships

The University offers full or partial tuition scholarships to students qualifying on the basis of merit.

Doctoral students are eligible for tuition scholarships during their first eight years of study. Masters' students are eligible for tuition scholarships during their first five years of study.

Employment and Loans**Office of Financial Aid**

Telephone: (574) 631-6436

Fax: (574) 631-6899

E-mail: finaid@nd.edu

Web: <http://financialaid.nd.edu>

In addition to the student support programs described above, the Office of Financial Aid, located in 115 Main Building, administers all loan and employment eligibility. Please note that while the Office of Financial Aid administers federal and private financial aid programs to assist in the financing of your Notre Dame education.

Applying for Federal Student Aid

In order to be eligible for federal student assistance, a student must be a U.S. citizen, permanent resident, or eligible noncitizen. In general, students must be classified as degree seeking to participate in the federal aid programs and be enrolled at least half-time. The Free Application for Federal Student Aid (FAFSA) is the annual application that must be completed and forwarded to the processing center, listing Notre Dame (Federal School Code 001840) in the appropriate section. Priority processing consideration will be given for those applicants submitting the FAFSA by February 28 for the following fall semester. Applicants should be prepared to submit a signed photocopy of their federal income tax returns and W-2 forms directly to the Financial Aid Office upon request.

Maintaining Financial Aid Eligibility

Recipients of federal financial aid must comply with the standards of progress set by their respective departments for their particular programs of study. When failure to maintain progress results in the possible loss of federal aid eligibility, the Office of Financial Aid will notify students in writing. Appeals indicating any mitigating circumstances must be made in writing to the assistant director of financial aid.

Federal Direct Loan

The terms of the need-based Subsidized Federal Direct Loan Program require that the student borrower repay, with interest, this source of financial assistance. This program is referred to as "subsidized" because of the interest subsidy being paid by the federal government to the lender while the student is enrolled in school as well as during the six-month grace period following enrollment.

FINANCIAL INFORMATION

The terms of the non-need-based Unsubsidized Federal Direct Loan Program require that the borrower repay, with interest, this source of financial assistance. This program is referred to as “unsubsidized” because the federal government is not paying the in-school interest to the lender while the student is enrolled in school. Interest on Unsubsidized Direct Loans begins to accrue after disbursement of the loan funds; however, the student may choose to have the payment of the interest deferred during enrollment and later capitalized (added to the principal) at the time repayment begins. For a list of additional terms of the subsidized and unsubsidized Direct Loan, visit the Office of Financial Aid website.

The amount a student may borrow from the Direct Loan Program may be limited by other financial assistance received by the student. Financial assistance includes, but is not limited to, the following: fellowships, assistantships, University scholarships, tuition remissions, all types of grants, residence hall appointments, campus employment, and any loan received under the auspices of the Higher Education Act as amended. Should a student’s eligibility be impacted at any time during the loan period, the Direct Loan will be subject to adjustment. All eligibility changes will be reported to the student’s lender.

Federal Perkins Loan

The Federal Perkins Loan is a need-based loan made by the University. The University is not in a position to offer this loan to graduate/professional students at this time due to limited funding availability.

Private Student Loans

After exhausting the opportunities available from the federal aid programs, many students will consider private loan programs as a source of funding.

The terms and conditions of these credit-based loan programs vary, and as such, students are encouraged to review the details of the programs before selecting a private loan program. Private loans are not eligible for loan consolidation programs made available for federal student loans. Interest rates, fees (both at the time of borrowing and at repayment), credit checks, and annual and aggregate loan limits require careful evaluation by the student as a consumer.

Additional information regarding private student loans for graduate students is available at <http://www.nd.edu/~finaid/loans/graduate/private.shtml> or through the Office of Financial Aid at (574) 631-6436 or finaid@nd.edu.

Student Employment

Graduate students may contact their department regarding assistantship opportunities. Other campus positions may be viewed on the **JOB**board at <http://financialaid.nd.edu/jobboard/index.shtml>.

The Division of Engineering

Aerospace and Mechanical Engineering

Chair:

Gretar Tryggvason

Director of Graduate Studies:

Timothy C. Ovaert

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Fax: (574) 631-8341

Location: 365 Fitzpatrick Hall

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The Program of Studies

The Department of Aerospace and Mechanical Engineering offers graduate programs of study and research leading to the degrees master of science in aerospace engineering, master of science in mechanical engineering, master of engineering in mechanical engineering, and doctor of philosophy. In addition, a combination master of engineering/juris doctor degree program is available to Notre Dame law students.

For those students seeking a master's degree, the programs aim at proficiency and creative talent in the application of basic and engineering sciences to relevant problems in the two engineering disciplines. The doctoral program strives to prepare students for creative and productive scholarship. It is designed to suit each student's interests and gives students the opportunity to conduct individual research under the supervision of the department faculty.

Students in either the master's degree or the doctoral degree programs must satisfy departmental and University course requirements along with the residence requirement.

Every degree-seeking student is required to participate in the academic programs of the

department by performing a teaching-related assignment.

Current research efforts are within the areas of aerospace sciences, biomechanics, biofluid mechanics, biomaterials, mechanical systems, robotics and design, solid mechanics and materials, and thermal and fluid sciences.

Aerospace Sciences

The aerospace sciences area emphasizes both the theoretical and the experimental aspects of aeroacoustics, aero-optics, aerospace systems design, high-lift aerodynamics, gas turbine engines, compressors, turbines, low Reynolds-number aerodynamics, low speed aerodynamics, particle dynamics, flow control, transonic, supersonic and hypersonic flows, wind energy and vortex aerodynamics.

Biomechanics, Biofluid Mechanics, and Biomaterials

The biomechanics, biofluid mechanics, and biomaterials areas offer opportunities for both basic and applied research using both experimental and computational techniques. Research focuses on the design and manufacture of orthopaedic devices, biological material characterization, cardiovascular fluid mechanics, novel biomaterials, biocompatibility, tribology, tissue engineering, mechanobiology, human body kinematics, and computational biomechanics. AME faculty also participate in the interdepartmental Bioengineering Graduate Program, which allows students to pursue a Ph.D. degree in Bioengineering.

Mechanical Systems, Robotics and Design

Research in this area is in both the theoretical and the experimental aspects of computer-aided design and manufacturing, design for manufacturing, design optimization, model-based design, reliability, dynamic and control systems, vision-based control mechanism and machine theory, robotics, and tribology.

Solid Mechanics and Materials

Research in this area focuses on the theoretical, experimental, and computational aspects of coupled field phenomena in continuum mechanics, cyclic plasticity, damage mechanics, dynamic deformation and fracture, fatigue crack initiation, fracture analysis of aircraft structures, high temperature fatigue of engineering alloys, inelastic buckling, interface fracture mechanics, modeling of composite and fused deposition polymeric materials, and structural stability.

Thermal and Fluid Sciences

Experimental and theoretical research in this area is conducted in boundary layer phenomena, chaos in fluid systems, computational fluid mechanics, detonation theory, droplet sprays, fire research, fluid-structure interaction, flow control, hydronics, hydrodynamic stability, industrial energy conservation, microfluid mechanics, molecular dynamics, multiphase and buoyant flows, reacting flows, turbulent flows, and solidification of liquid metals.

Faculty

Arezoo Ardekani, Assistant Professor

Hafiz Atassi, Viola D. Hank Professor

Stephen M. Batill, Professor

Joshua Cameron, Research Assistant Professor

Hsueh-Chia Chang, Concurrent Professor

Thomas C. Corke, Director of the Hessert Laboratory for Aerospace Research and Clark Equipment Professor

Sadegh Dabiri, Research Assistant Professor

Hyungrok Do, Assistant Professor

Patrick F. Dunn, Professor

Joseph Fernando, Concurrent Professor

David Go, Assistant Professor

J. William Goodwine, Associate Professor

Stanislav Gordeyev, Research Assistant Professor

Frank Incropera, the H. Clifford and Evelyn A. Brosey Professor of Mechanical Engineering

Eric J. Jumper, Professor

Tengfei Luo, Assistant Professor

Eric Matlis, Research Assistant Professor

Karel Matous, Associate Professor

Scott C. Morris, Associate Professor

Robert C. Nelson, Professor

Glen L. Niebur, Associate Professor

Timothy C. Ovaert, Professor and Director of Graduate Studies

Samuel Paolucci, Professor

Joseph M. Powers, Professor

R. Mark Rennie, Research Assistant Professor

Ryan K. Roeder, Associate Professor

Steven R. Schmid, Associate Professor

James P. Schmiedeler, Associate Professor

Fabio Semperlotti, Assistant Professor

Mihir Sen, Professor

Michael M. Stanisic, Associate Professor

Philippe Sucusky, Assistant Professor

Flint O. Thomas, Professor

Gretar Tryggvason, Viola D. Hank Professor and Interim Department Chair

Diane R. Wagner, Assistant Professor

Meng Wang, Associate Professor

Bioengineering

Interim Director:

Mark J. McCready

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Web: <http://www.nd.edu/~bioeng>

Bioengineering lies at the intersection of the life sciences and the traditional disciplines of chemical, civil, computer, mechanical and electrical engineering. Bioengineering research at Notre Dame includes biomedical applications, such as orthopaedic implants, miniature medical diagnostic devices, medical imaging and algorithms for radiation treatment as well non-medical applications such as analysis of genomic information, biological water treatment, bacteria-mineral interactions and bioremediation.

The Program of Studies

The Ph.D. program has been designed to emphasize depth of knowledge in a single traditional engineering discipline, while incorporating additional coursework to provide a strong foundation in the biological sciences.

All University requirements regarding examinations and courses will apply to the program. The following requirements are specific to the bioengineering degree.

Course Requirements

Students will complete a minimum of nine courses (27 credit hours). Degree plans will be designed in cooperation with the student's adviser. Because of the breadth of research areas and potential career paths for students, it is necessary to allow flexibility in structuring the academic plan for each student. However, general course guidelines will be used to ensure that students receive adequate instruction in both engineering and biological sciences.

The following minimum requirements must be satisfied by each student's degree program:

Engineering Science: Nine credits (three courses) of traditional engineering courses at the graduate level (60000 and above). These courses must incorporate significant applications of engineering mathematics, and should generally be from the student's home department. The courses appropriate to fulfill these requirements will be determined by the Faculty Program Committee of the Bioengineering Graduate Program. A list will be provided to the students upon matriculation into the program, and updated as appropriate.

Biological Science: Nine credits (three courses) of biosciences courses such as biology, physiology, anatomy, or biochemistry. The courses must include Introduction to Cell Biology (BIOS 30341 or equivalent) and higher level

courses. Additional courses at the 30000-level may be taken as remedial courses, but cannot be used to fulfill the bioscience requirements. The biosciences coursework is intended to provide the student with depth of knowledge in the biological sciences, and should include at least one course at the graduate (60000 or greater) level.

Bioengineering: A minimum of nine credits (three courses) of engineering, bioengineering, and biology electives at the graduate level (60000 and above). These courses are intended to develop the student's ability to synthesize knowledge in engineering and biology, and to develop the necessary background to complete their dissertation research.

Seminar: A zero-credit bioengineering seminar during all semesters in residence. The seminar will present recent advances across the spectrum of bioengineering research. One seminar each semester will be devoted to topics in bioethics with emphasis on contemporary questions in bioethics (e.g. stem cells, human subjects, and the use of animals in research).

In the first year of study, students must formulate a degree plan, including specific courses to be taken. The degree plan will be reviewed and approved by the program director and FPC. The proposed program of study represents the minimum set of courses that the student will complete in order to receive their degree, and any omissions or substitutions, regardless of the reason, must be explicitly approved by the bioengineering FPC or their designate(s).

Program Examinations

After the second semester of residence, each student presents written and oral reports based on thesis research or project work. These reports, along with performance in courses, in research, and in teaching assistantship duties, constitute the comprehensive evaluation in chemical engineering. This allows the faculty to evaluate the student's grasp of bioengineering fundamentals and his or her ability to perform original, independent research. Students who pass the comprehensive evaluation may continue to the Ph.D. program.

Students generally take the oral candidacy examination before the end of the fifth semester in residence. This examination focuses on the progress achieved in thesis-related work and on the proposed future research.

Areas of current research include: bio-inspired optimization strategies, biological materials; biomechanics, bioseparations; cell mechanics, computational biology, drug transport in bone tissue, medical imaging medical microfluidic devices; microscale sensor arrays; orthopaedic implants, tissue engineering, tissue mechanics

More detailed descriptions of the research interests of individual faculty members may be found at the program website, <http://www.nd.edu/~bioeng>.

For associated course listings, see the listings for the Aerospace and Mechanical Engineering and Chemical and Biomolecular Engineering programs.

Chemical and Biomolecular Engineering

Chair:

Mark J. McCready

Director of Graduate Studies:

Mark A. Stadtherr

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Fax: (574) 631-8366

Location: 182 Fitzpatrick Hall

E-mail: chegdept@nd.edu

Web: <http://cbe.nd.edu>

The Program of Studies

The department offers programs leading to the degrees master of science and doctor of philosophy. The aim of the graduate program is to prepare qualified candidates for research, development, teaching, and other professional careers in chemical and biomolecular engineering. Thus, the Ph.D. program is emphasized.

The objective of the doctoral program is to superimpose upon a broad education the ability to think independently in new fields, to coordinate technical ideas at an advanced level, and to make a systematic approach to the solution of new problems.

The course work is chosen in consultation with department faculty and the dissertation research adviser according to procedures outlined in *A Guide to Graduate Studies in*

Chemical and Biomolecular Engineering (available from the department office).

The master's degree program requires 30 credit hours, including at least 15 credit hours of course work. For the Ph.D., 72 hours are required, including at least 30 credit hours of course work. There are required courses in the areas of thermodynamics, reaction engineering, transport phenomena, and mathematical methods.

After the second semester of residence, each Ph.D. student presents written and oral reports based on thesis research or project work. These reports, along with performance in courses, in research, and in teaching assistantship duties, constitute the comprehensive evaluation in chemical engineering. This allows the faculty to evaluate the student's grasp of chemical engineering fundamentals and his or her ability to perform original, independent research. Students who pass the comprehensive evaluation may continue to the Ph.D. program.

Ph.D. students generally take the oral candidacy examination before the end of the fifth semester in residence. This examination focuses on the progress achieved in thesis-related work and on the proposed future research.

The departmental faculty believes that all students seeking advanced degrees in chemical and biomolecular engineering should have some experience related to the instruction of others. Therefore, all first- and second-year graduate students are assigned teaching assistant duties. These duties consist of conducting recitation sections for lecture courses, supervising laboratory courses, or grading homework.

Full-time students normally complete the Ph.D. degree requirements in about four-and-a-half years beyond the bachelor's degree. Requirements for the master's degree can normally be completed in two years of full-time study.

A student pursuing the Ph.D. degree will be eligible to receive an M.S. degree after completing five semesters in the Ph.D. program, passing the Ph.D. candidacy exam, and preparing and submitting for publication a research paper in collaboration with the student's research adviser(s). This paper shall describe

work in which the student has a primary (not supporting) role, be submitted to a research journal or to the proceedings of a technical conference, and be subject to peer review.

Teaching and Research Faculty

Başar Bilgiçer, Assistant Professor

Paul W. Bohn, Schmitt Professor

Joan F. Brennecke, Keating-Crawford Professor of Chemical Engineering and Director of Notre Dame Center for Sustainable Energy at Notre Dame

Hsueh-Chia Chang, Bayer Corporation Professor of Chemical Engineering

Jason C. Hicks, Assistant Professor

Davide A. Hill, Associate Professor

Prashant Kamat, Concurrent Professor

Jeffrey C. Kantor, Professor

Peter Kilpatrick, McCloskey Dean of Engineering

David T. Leighton Jr., Professor

Edward J. Maginn, Professor and Associate Dean for Academic Programs in the Graduate School

Mark J. McCready, Chair and Professor

Paul J. McGinn, Professor

William A. Phillip, Assistant Professor

William F. Schneider, Professor

Zachary D. Schultz, Concurrent Assistant Professor

Mark A. Stadtherr, Director of Graduate Studies and Keating-Crawford Professor of Chemical Engineering

Franklin Tao, Concurrent Assistant Professor

Eduardo E. Wolf, Professor

Y. Elaine Zhu, Associate Professor

Civil Engineering and Geological Sciences

Chair:

Johannes Westerink

Director of Graduate Studies:

Robert Nerenberg

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The Program of Studies

The graduate program in civil engineering and geological sciences provides an interdisciplinary atmosphere conducive to preparation of qualified candidates for careers in structural engineering, environmental engineering, environmental hydrology, and geological sciences.

The programs of study offered by the department lead to the master of science degree and the doctor of philosophy. The department requires a minimum cumulative grade point average of 3.0 for graduation from its degree programs.

Although both research and nonresearch options are available to students seeking the master's degree, the research option is the preferred and normal route. The nonresearch option is allowed only in exceptional circumstances. In the research option, 30 credit hours are required with six to 14 of these credits devoted to thesis research, depending on the program of study developed in conjunction with the department. The research option requires a completed thesis and an oral defense of that thesis. The master's research is commonly completed by the end of the fourth semester of enrollment.

Requirements for the doctor of philosophy include a total of 72 credit hours with at least 18 credit hours of formal graduate course work, successful completion of a written qualifier examination, a research proposal, an oral candidacy examination, and completion and defense of a dissertation.

Programs of study and research are arranged to suit the specific background and interests of the individual student, with guidance and approval of the faculty of the department and

in conformity with the general requirements of the Graduate School.

Regardless of funding source, all students participate in the educational mission of the department by serving as teaching assistants for eight hours per week during their first year, four hours per week during their second year, and, for continuing students, four hours per week during one additional semester.

Graduate students are encouraged to complete courses from other departments and colleges within the University to expand their understanding of today's complex technological-social-economic problems. In the past, students have shown particular interest in extradepartmental courses in biological sciences, chemical engineering, chemistry, economics, electrical engineering, mathematics, and mechanical engineering.

Admission to graduate study in civil engineering and geological sciences is not limited to undergraduate majors in civil engineering and/or geology. Those with undergraduate majors in other fields of engineering or the physical sciences are encouraged to apply. Students are not required to have completed a master's program to pursue the doctor of philosophy.

All full-time admitted students, pursuing a research degree option, are provided with full financial support that includes a competitive stipend and full tuition waiver. Additional fellowships are available for students from underrepresented groups.

Teaching and Research Faculty

Thomas Albrecht-Schmitt, Professor

Diogo Bolster, Assistant Professor

Peter C. Burns, Henry J. Massman Jr. Professor of Civil Engineering and Geological Sciences

Jeremy B. Fein, Director of the Center for Environmental Science and Technology and Professor

Harinda J. Fernando, Wayne and Diana Murdy Endowed Professor of Engineering and Geosciences

Ahsan Kareem, the Robert M. Moran Professor of Civil Engineering and Geological Sciences

Andrew Kennedy, Assistant Professor

Kapil Khandelwal, Assistant Professor

Tracy Kijewski-Correa, the Leo E. and Patti Ruth Linbeck Collegiate Associate Professor and Associate Chair

David J. Kirkner, Associate Professor

Yahya C. Kurama, Professor

Patricia A. Maurice, Professor

Ralph Milliken, Assistant Professor

Chongzheng Na, Assistant Professor

Clive R. Neal, Professor

Robert Nerenberg, Director of Graduate Studies and Associate Professor

J. Keith Rigby Jr., Associate Professor

Joshua D. Shrout, Assistant Professor

Stephen E. Silliman, Professor and Associate Chair

Alexandros Taflanidis, Rooney Family Assistant Professor

Ashley P. Thrall, Cardinal John O'Hara Assistant Professor

Joannes J. Westerink, Henry J. Massman Department Chair, Notre Dame Chair in Computational Hydraulics and Professor

Computer Science and Engineering

Chair:

Kevin W. Bowyer

Director of Graduate Studies:

Sharon Hu

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Location: 326 Cushing Hall

E-mail: cse@cse.nd.edu

Web: <http://www.cse.nd.edu>

The Program of Studies

The department offers programs of study and research leading to the degrees of master of science in computer science and engineering and the doctor of philosophy.

Students who show potential for the doctoral level work may be admitted to the Ph.D. program but are expected to complete the master's degree requirements first. The master's degree requires a minimum of 24 credit hours of course work beyond the bachelor's degree and a master's thesis. A full-time student can complete these requirements in three regular academic semesters plus the summer, although the majority of students take four semesters. The student must, upon the acceptance of the thesis, successfully pass an oral thesis defense examination. Doctoral students are normally required to accumulate a minimum of 12 credit hours of satisfactory course work beyond the master's degree, plus a dissertation.

The doctoral program normally requires four years of full-time work. The requirements include successful completion of the Ph.D. qualifying and candidacy examinations, a dissertation, and the oral dissertation defense examination. Students are encouraged to pursue course work outside the department whenever such studies support their program in the major field.

The Ph.D. qualifying examination is course-based and is normally completed in the second spring semester after entering the program with a bachelor's degree. Those admitted with a master's degree are required to finish the courses for the Ph.D. qualifying examination by the end of the first spring after entering the program. The Ph.D. candidacy requirement, which consists of a written and an oral part, is administered to determine if the student has identified a viable dissertation topic. The candidacy consists of a written topic proposal followed by an oral examination. After passing the Ph.D. candidacy, which takes place after the completion of the formal course work, the student devotes essentially all efforts to completing his or her dissertation research. At the dissertation defense, the student defends the dissertation before an oral examining board. In recent years, students have completed the Ph.D. degree requirements in about four to five years.

Finally, both M.S. and Ph.D. candidates are required to complete a teaching apprenticeship that involves teaching duties of one semester for M.S. candidates and two semesters for Ph.D. candidates.

Teaching and Research Faculty

Panos J. Antsaklis, Director of the Center for Applied Mathematics, the H. C. and E. A. Brosey Professor of Electrical Engineering, and Concurrent Professor of Computer Science and Engineering

Albert-László Barabási, Adjunct Professor

Brian Blake, Professor and Associate Dean of Engineering for Research

Marina Blanton, Assistant Professor

Kevin W. Bowyer, Chair, the Schubmehl-Prein Professor, and Concurrent Professor of Electrical Engineering

Jay B. Brockman, Associate Professor and Concurrent Associate Professor of Electrical Engineering

Amitabh Chaudhary, Assistant Professor

Nitesh V. Chawla, Associate Professor

Danny Z. Chen, Professor

Frank H. Collins, Concurrent Professor and the George and Winifred Clark Professor of Biological Sciences

Scott Emrich, Assistant Professor

Patrick J. Flynn, Professor

Eugene Henry, Professor Emeritus

Xiaobo Sharon Hu, Director of Graduate Studies and Professor

Yih-Fang Huang, Professor of Electrical Engineering and Concurrent Professor of Computer Science and Engineering

Jesús A. Izaguirre, Associate Professor

Peter M. Kogge, the Ted H. McCourtney Professor of Computer Science and Engineering and Concurrent Professor of Electrical Engineering

Tijana Milenkovic, Assistant Professor

Jaroslaw (Jarek) Nabrzyski, Concurrent Associate Professor and Director of the Center for Research Computing

Michael Niemier, Assistant Professor

Christian Poellabauer, Associate Professor

Laurel Riek, Clare Boothe Luce Assistant Professor

Raul Santelices, Assistant Professor

Robert L. Stevenson, Professor of Electrical Engineering and Concurrent Professor of Computer Science and Engineering

John Stewman, Visiting Associate Professor

Aaron Striegel, Associate Professor

Douglas Thain, Associate Professor

Zoltan Toroczkai, Concurrent Professor and Associate Professor of Physics

John J. Uhran Jr., Professor Emeritus and Professor Emeritus of Electrical Engineering

Joahannes Westerink, Concurrent Professor and Professor of Civil Engineering

Electrical Engineering

Chair:

Thomas E. Fuja

Director of Graduate Studies:

Gregory L. Snider

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The Program of Studies

The department offers programs leading to the M.S. and Ph.D. degrees in electrical engineering.

A research M.S. degree requires 30 credit hours beyond the B.S., with at least six credit hours coming from thesis research. A research M.S. also requires the completion and defense of an M.S. thesis. A nonresearch M.S. degree requires 30 credit hours of course work. All students must take a written qualifying examination at the end of their second semester of graduate study; successful completion of the exam is required to receive an M.S. degree.

To continue to the Ph.D. program, students must also take an oral research exam before the start of their third semester. Doctoral students must accumulate a minimum of 36 course credits beyond the B.S. degree, pass the qualifying and candidacy examinations, spend at least two years in resident study, and write and defend a Ph.D. dissertation.

Teaching and Research Faculty

Panos J. Antsaklis, the H. C. and E. A. Brosey Professor of Electrical Engineering, and Concurrent Professor of Computer Science and Engineering

Peter H. Bauer, Professor

Gary H. Bernstein, Professor

Patrick J. Fay, Professor

Thomas E. Fuja, Chair and Professor

Vijay Gupta, Assistant Professor

Martin Haenggi, Professor

Douglas C. Hall, Associate Professor

Bernard Hochwald, Professor

Scott Howard, Assistant Professor

Yih-Fang Huang, Professor of Electrical Engineering and Concurrent Professor of Computer Science and Engineering

Debdeep Jena, Associate Professor

Thomas H. Kosel, Associate Professor

J. Nicholas Laneman, Associate Professor

Michael D. Lemmon, Professor

Craig S. Lent, the Frank M. Freimann Professor of Electrical Engineering

Christine M. Maziar, Vice President and Senior Associate Provost of the University and Professor of Electrical Engineering

Paolo Minero, Assistant Professor

Wolfgang Porod, Director of the Center for Nano Science and Technology and the Frank M. Freimann Professor of Electrical Engineering

Ken D. Sauer, Associate Professor

Alan C. Seabaugh, Director of the Midwest Institute for Nanoelectronics Discovery (MIND) and Professor

Gregory Snider, Director of Graduate Studies and Professor

Robert L. Stevenson, Professor of Electrical Engineering and Concurrent Professor of Computer Science and Engineering

Gregory Timp, Professor

Mark A. Wistey, Assistant Professor

Grace Xing, Associate Professor

Engineering and Law Dual Degree Program

The dual degree program in engineering and law is designed for law students who are interested in pursuing careers in areas such as patent, environmental, telecommunications, or similar law specialties. To be eligible for the master of engineering degree, the candidate must have a B.S. in an A.B.E.T. accredited engineering or computer science program and must also be a candidate for the juris doctor degree in the Notre Dame Law School. The master's of engineering program is not available as an individual degree program.

To be awarded both degrees, the candidate must complete a minimum of 99 credit hours, 75 in law and 24 in the engineering program. The engineering degree awarded will be the master of engineering with a concentration in one of the engineering disciplines offered in Notre Dame's division of engineering. The course work-only master's program requires the completion of 24 credit hours of engineering, mathematics, or science courses acceptable to the appropriate engineering department; six credit hours of appropriate law courses; and a master's examination. Courses for the M.Eng. will be chosen in consultation with an adviser in the student's engineering department. The recommended distribution of engineering courses in the Law School curriculum is one each semester during the first and third years of study and two each semester during the second year. (<http://www.nd.edu/engineer/prospects/images/lawdual.pdf>)

Admission

Admission to the program requires a separate application to each school. Admissions decisions will be made independently by the Law School and by the Graduate School.

To apply to the Law School, or for more information, please visit <http://law.nd.edu> or telephone (574) 631-6626.

For further information about the engineering program, contact the Office of Graduate Admissions by telephone at (574) 631-7706 or by email at gradad.1@nd.edu.

The Division of Humanities

Art, Art History, and Design

Chair:

Charles Barber

Director of Graduate Studies:

Robert Sedlack

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Fax: (574) 631-6312

Location: 306 Riley Hall

E-mail: art@nd.edu

Web site: <http://www.nd.edu/~art>

The Program of Studies

The Department of Art, Art History, and Design offers the master of fine arts (M.F.A.) degree in studio art and design and the master of arts (M.A.) degree in art history. In studio art and design, the department also awards the M.A. degree, but only to students who are not accepted to degree candidacy in the M.F.A. program.

The aim of the graduate program is to educate qualified, promising students in various aspects of creative activity and art history. Art studio and design students may concentrate in ceramics, graphic design, industrial design, painting, photography, printmaking, and sculpture, or in a combination of these disciplines. Art history students select from a range of course offerings to fulfill their professional interests. In addition to specific courses, graduate students may pursue an area of interest through a system of independent study with a faculty adviser and a graduate committee selected by the student. M.F.A. students are expected to develop a personal direction that culminates in a professional exhibition of visual work or a research project in art history.

The Master of Fine Arts Degree

The master of fine arts degree (M.F.A.) at Notre Dame is for artists and designers with exceptional talent and strong academic skills. The program combines studio work with academic studies in art and design history and criticism. The College Art Association and most other professional institutions of higher education recognize the M.F.A. as the terminal degree for artists and designers. This degree has become the standard prerequisite for those who intend to teach at the college level. It is also appropriate for individuals seeking to further develop their professional careers as artists and designers.

The M.F.A. degree is a studio and research degree that requires three years or six semesters of study and 60 graduate credit hours with a B (3.0) or better average, including nine credit hours of art or design history, three credit hours in ARHI 63570 (Graduate Seminar) and 10 credit hours of ARST 78708 (Thesis Direction). Additional requirements include:

- Successful completion of ARST 62704 (Teaching Methods) each year.
- Successful completion of the seminar offered in the student's area of study each semester.
- Admission to the third year of the M.F.A. program (M.F.A. candidacy).
- The successful completion of a written thesis approved by the student's thesis committee.
- The completion of a thesis project, an exhibition of creative work that is approved by the entire art and design faculty.
- In addition there will be an option to send images electronically through a website. Please refer to the departmental website for information.

Students who are not in residence but still in the process of finishing an M.F.A. degree must be enrolled for a minimum of one credit hour of ARST 78706 (Nonresident Thesis Research) each semester.

The Master of Arts Degree: Art History

The M.A. prepares the student for more advanced graduate work by providing him or her with the opportunity to solidify general and specialized art historical knowledge and to hone research skills. The degree may also serve as a foundation for employment or further study in fields such as museology, visual image management, and art dealing and investment. The M.A. in art history is not a terminal degree. A doctorate is normally required to teach at the collegiate level.

The M.A. in art history requires the completion of 36 credit hours of graduate study, including six credit hours of thesis research, with a B (3.0) or better average. A normal course load is from nine to 12 credit hours per semester. The successful completion of ARHI 63576 (Art History Methods) is required. Students must also successfully complete four seminars in addition to ARHI 63576 (Theories of Art). Students who are not in residence but still in the process of finishing an M.A. degree must be enrolled for a minimum of one credit hour of ARHI 68574 (Nonresident Thesis Research) each semester.

Additional requirements include:

- The successful completion of a written thesis. The student will be expected to select a thesis topic and adviser by the end of the first year of study. The finished thesis must be approved by the student's thesis committee and then presented at the art history graduate symposium in the spring of the student's second year.

- Evidence of reading ability in one foreign language, either German, French, or another language approved by the graduate adviser. Reading ability is normally demonstrated by obtaining a passing grade on the appropriate Graduate Reading Examination administered by the University. This requirement must be fulfilled during the first year of graduate study.

The Master of Arts Degree: Studio Art and Design

The non-research master of arts degree (M.A.) program in studio art and design is granted to M.F.A. students who either are not admitted to M.F.A. candidacy or choose to leave the M.F.A. program with an M.A. degree. The department does not regularly admit students to this program. The non-research M.A. degree requires 40 graduate credits, including six credit hours in art history and three credit hours in ARHI 63570 (Graduate Seminar). Students who are not in residence but still in the process of finishing an M.A. degree must be enrolled for a minimum of one credit hour of ARST 78706 (Nonresident Thesis Research) each semester.

Studio Art and Design Course Descriptions

Graduate instruction in studio and design is done primarily on an independent study basis. Students take credit hours each semester with faculty in their chosen media area. The program fosters an interdisciplinary environment that allows students to also study with faculty from other areas of the department to meet their creative objectives. Students meet regularly with faculty and graduate students for critiques and seminars. Course listings below reflect the various media areas in which a student can take credits.

Teaching and Research Faculty

Charles E. Barber, Chair and Professor

Robert R. Coleman, Associate Professor and Research Specialist in the Medieval Institute

Rev. Austin I. Collins, C.S.C., Professor

Jan A. Dibble, Associate Professor

Dennis P. Doordan, Concurrent Professor of Art, Art History, and Design and Professor of Architecture

Paul A. Down, Associate Professor

Gabrielle Gopinath, Assistant Professor

Richard Gray, Director, Center for Creative Computing and Associate Professor

Danielle B. Joyner, Assistant Professor

William J. Kremer, Professor

Martina Lopez, Professor

André Murnieks, Assistant Professor

Martin L. Nguyen, C.S.C., Associate Professor

Kathleen A. Pyne, Assistant Director of Graduate Studies for Art History and Professor

Robin F. Rhodes, Associate Professor and Concurrent Associate Professor of Classics

Charles M. Rosenberg, Professor

Robert P. Sedlack, Chairperson, Director of Graduate Studies and Associate Professor

Maria Tomasula, The Michael P. Grace II Chair in Arts and Letters (Collegiate Chair) and Professor

Classics

Chair:

Elizabeth Forbis Mazurek

Director of Graduate Studies

Brian Krostenko

Telephone: (574) 631-7195

Fax: (574) 631-2153

Location: 304 O'Shaughnessy

Email: classics@nd.edu

Degree Requirements

Students must complete 36 credits over two years in the master of arts program. The curriculum is well-defined, but includes room for adjustment based on students' individual needs and interests. The details of any particular student's coursework will depend on the Director of Graduate Studies in consultation with the Graduate Committee.

Students can choose from several areas of emphasis, including language and literature, history, late antiquity, and philosophy.

In addition to completing all course requirements, students will be expected to read a list of texts in preparation for their examinations and for further study in the field of Classics. This reading list will be compiled with a view to the needs and interests of individual students by the Director of Graduate Studies and the Graduate Committee.

Examinations

Students will be required to take examinations in Greek and/or Latin translation at the beginning of their fourth semester, with the possibility of taking the exam again in the spring. The exam will be based on a standard reading list of core texts, though some adjustment may be made according to individual needs.

Since German, French and Italian are of major importance for research, all students will be required to demonstrate reading proficiency in one of these languages by passing an appropriate examination.

Students choosing not to write a thesis will be required to take a comprehensive written and oral examination at the end of the fourth semester. Unlike the Greek and Latin examinations, the comprehensive examination will focus on broad topics pertaining to classical history, literature, and culture.

Thesis

With departmental permission, students will have the option of writing a final master's thesis in a 3-credit or 6-credit version. Students intending to go on to a Ph.D. programs are advised to exercise this option.

Students writing a thesis are not required to take the comprehensive examination.

Teaching and Research Faculty

Joseph P. Amar, Professor of Classics and Concurrent Professor of Theology

Christopher A. Baron, Assistant Professor of Classics

W. Martin Bloomer, Associate Professor of Classics

Keith R. Bradley, Eli J and Helen Shaheen
Professor of Classics

Li Guo, Associate Professor of Arabic Language and Literature

David Hernandez, Assistant Professor of Classics

Brian Krostenko, Director of Graduate Studies and Associate Professor of Classics

David Ladouceur, Associate Professor of Classics

Blake Leyerle, John Cardinal O'Hara, C.S.C., Associate Professor of Theology

Sabine MacCormack, Rev. Theodore Hesburgh Professor of Arts and Letters

Elizabeth Forbis Mazurek, Chair and Associate Professor of Classics

Hildegund Müller, Associate Professor of Classics

David O'Connor, Associate Professor of Philosophy

Robin Francis Rhodes, Associate Professor of Art History

Catherine Schlegel, Associate Professor of Classics

Isabelle Torrance, Assistant Professor of Classics

Early Christian Studies

Chairs:

Elizabeth Mazurek (Classics)
J. Matthew Ashley (Theology)

Director of Graduate Studies:
Blake Leyerle

Telephone: (574) 631-7195
Fax: (574) 631-2153
Location: 304 O'Shaughnessy
Web: <http://classics.nd.edu>

The two-year interdisciplinary M.A. program in early Christian studies is sponsored jointly by the Departments of Classics and Theology, with the participation of faculty in several other departments (see listing below). It offers beginning graduate students basic training in philology, theology, history, liturgy, art history, and philosophy. Each student

develops a curriculum to meet individual needs in consultation with a committee of faculty advisers. But all curricula are designed to ensure that students are equipped with the necessary language skills (at least two ancient Christian languages and literatures [Latin and/or Greek and/or Syriac] and one or more contemporary research languages) and with a sturdy grasp of the intellectual, historical, and social contexts of the early church and the methods and resources for studying them.

New disciplinary and critical approaches to late antiquity, as well as a growing awareness of the importance of Christian origins for the present life of the churches, have made early Christian studies a vibrant and rapidly expanding field. Traditional expertise in philology, history, and theology remains fundamental, but these skills must now be supplemented by a broad range of interdisciplinary approaches. An unusually strong faculty presence makes Notre Dame the ideal place for pursuing this area. Students who come with a keen interest in the field, but limited formal training in it, may acquire the basic skills and knowledge necessary for advanced study. Those already adequately prepared in the basics can broaden their competency by studying the language and culture of Middle Eastern, Egyptian, and Byzantine Christianity, and of Rabbinic Judaism and early Islam.

This is a demanding, extended (two academic years plus summer) M.A. program that prepares students to enter the best doctoral programs in theology, religious studies, history, art history, and literary studies, already proficient in language study and basic training in the multiple fields of early Christian studies.

Teaching and Research Faculty

Joseph P. Amar, Professor of Classics and Concurrent Professor of Theology

Charles E. Barber, the Michael P. Grace Professor of Arts and Letters and Professor of Art, Art History, and Design

W. Martin Bloomer, Associate Professor of Classics

Keith R. Bradley, Eli J and Helen Shaheen Professor of Classics, and Concurrent Professor of History

John C. Cavadini, Associate Professor of Theology, and Executive Director of the Institute for Church Life

Brian E. Daley, S.J., the Catherine F. Huisking Professor of Theology

Blake Leyerle, The John Cardinal O'Hara, C.S.C., Associate Professor of Theology and Concurrent Associate Professor of Classics

Sabine MacCormack, Rev. Theodore Hesburgh, C.S.C. College of Arts and Letters Chair, jointly appointed in History and Classics

Daniel J. Sheerin, Professor of Classics and Concurrent Professor of Theology, Emeritus

Robin Darling Young, Associate Professor of Theology

Associated Faculty

David E. Aune, Professor of Theology

Mary Rose D'Angelo, Associate Professor of Theology

Stephen E. Gersh, Professor of Medieval Studies

Maxwell E. Johnson, Professor of Theology

Mary M. Keys, Associate Professor of Political Science

Brian Krostenko, Associate Professor of Classics

David Ladouceur, Associate Professor of Classics

John P. Meier, the William K. Warren Professor of Catholic Theology

Hildegund Müller, Associate Professor of Classics

David K. O'Connor, Associate Professor of Philosophy and Concurrent Associate Professor of Classics

Gretchen J. Reydams-Schils, Professor and Chair, Program of Liberal Studies and Fellow in the Nanovic Institute for European Studies

Gregory E. Sterling, Dean of the Graduate School and Professor of Theology

ENGLISH

English

Chair:

Valerie Sayers

Director of Graduate Studies:

Elliott Visconsi

Director of Creative Writing:

Orlando Menes

Telephone: (574) 631-6618
(574) 631-7526 (CW)

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Location: 356 O'Shaughnessy
340 O'Shaughnessy (CW)

E-mail: english@nd.edu
creativewriting@nd.edu

Web: <http://www.nd.edu/~english>
<http://www.nd.edu/~alcwp>

The Program of Studies

M. A. in English and American Literature

The M.A. program is specifically designed for former Notre Dame or St. Mary's undergraduate English majors seeking advanced training before applying to a Ph.D. program at another institution. This is a 30-credit-hour program, requiring either 30 credit hours of course work or 24 credit hours of course work and six credit hours of thesis research. Students must take one course in literary criticism or theory. Those seeking the research degree must also demonstrate proficiency in a language appropriate to their area of research. Near the conclusion of the program, the student takes a written examination covering three major literary texts and selected criticism, designed to test the student's capacity for critical study, or writes a master's thesis.

M.A. in English and Law

This is a program open only to students already admitted to the Notre Dame Law School who also wish to obtain a Master of Arts degree in English. A student takes 21 hours of English courses and 9 hours of law courses. Normally, students pursue the non-research degree; those wishing to complete the research degree need to complete an ad-

ditional six hours of thesis research. Current or matriculated NDLS students apply directly to the English Department.

M.F.A. in Creative Writing

The graduate creative writing program is a four-semester program in which students take 36 credit hours of writing workshops, thesis preparation tutorials, and literature classes. Students may also choose to work as editorial assistants on our national literary magazine, *The Notre Dame Review*. Throughout the four semesters, all students work closely with an adviser on the thesis, which will ultimately be a publishable novel, collection of stories, volume of poetry, or work of literary nonfiction.

Ph.D. Program

Course Requirements

The Ph.D. program requires 42 credit hours of course work. Students must take the Introduction to Graduate Study, a historical distribution of courses, and at least one course in literary theory. In keeping with its policy of encouraging interdisciplinary study, the program permits the student to take up to 12 credit hours of course work in a field other than English.

Foreign Language Requirement

By the end of the second year of full-time residency, the student must demonstrate proficiency in two languages or fluency in one language. Proficiency is demonstrated by successfully passing a language exam administered by the appropriate language department, or by passing an advanced undergraduate literature course in the language. Fluency is demonstrated by passing a graduate literature course in the language. The language(s) should be appropriate to the student's area of research.

Candidacy (Comprehensive Three-Field Examination)

The student takes examinations in one historical period selected from among Old English, Middle English, Renaissance, Restoration and 18th-century, 19th-century British, 20th-century British, early American literature (to 1865), middle American literature from the Civil War to 1930, and post-1930 American literature; either a second historical period or a special topic; and one examination in literary theory/methodology. One of these three fields, ordinarily the field in

which the student intends to write his or her dissertation, is designated the major field. These examinations are intended to determine whether the student possesses the theoretical skills and specialized knowledge necessary for writing a dissertation and for teaching in his or her field. Special reading courses enable students to dedicate the majority of their last two semesters of course work to preparation for these examinations. The written part of the examination is followed by an oral component.

Dissertation Proposal

In the fall of the fourth year, students produce a dissertation prospectus and preliminary draft of one part of the dissertation (a chapter or substantial part of a chapter). Students then meet with the dissertation committee for advice on continuing and completing the project.

Dissertation

Upon receiving approval of the proposal, the student proceeds with the dissertation under continuing supervision of the dissertation director. The dissertation is intended to demonstrate the student's readiness to participate fully in the profession as a scholar and literary critic.

Teaching and Research Faculty

Jacqueline V. Brogan, Professor

Mary Burgess Smyth, Assistant Professor

Joseph A. Buttigieg, William R. Kenan Jr. Professor of English, Director of the Ph.D. in Literature Program, and Director of the Office of International Studies

James M. Collins, Professor of Film, Television, and Theatre and Concurrent Professor of English

Margaret Doody, John and Barbara Glynn Family Professor of Literature

John Duffy, Associate Professor and Director, University Writing Center and College Seminar Program

Stephen M. Fallon, Cavanaugh Professor of Humanities and Professor of English

Christopher B. Fox, Professor, Director of the Keough Institute for Irish Studies, and Chair of Irish Language and Literature

Stephen A. Fredman, Professor

Dolores Warwick Frese, Professor

Johannes Goransson, Assistant Professor

Barbara J. Green, Associate Professor

Stuart Greene, Associate Professor of English

Sandra Gustafson, Associate Professor

Thomas N. Hall, Professor

Susan Cannon Harris, Associate Professor and Concurrent Associate Professor in the Keough-Naughton Institute for Irish Studies

Peter Holland, McMeel Professor in Shakespeare Studies in the Department of Film, Television and Theatre, and Concurrent Professor in English

Romana Huk, Associate Professor

Cyraina Johnson-Roullier, Associate Professor

Kathryn Kerby-Fulton, Notre Dame Professor of English

Greg P. Kucich, Director of the London Program and Professor

Jesse M. Lander, Associate Professor

Jose Limon, Notre Dame Professor of American Literature

Sara Maurer, Assistant Professor

Joyelle McSweeney, Associate Professor

Orlando Menes, Director of Creative Writing and Associate Professor

Susannah Monta, Associate Professor

William A. O'Rourke, Professor

Valerie Sayers, Department Chair and Professor

John Sitter, Mary Lee Duda Professor of Literature

Yasmin Solomonescu, Assistant Professor

David Wayne Thomas, Associate Professor

Steve Tomasula, Associate Professor

Chris R. Vanden Bossche, Undergraduate Director of Studies and Professor

Elliott Visconsi, Director of Graduate Studies, Associate Professor, Concurrent Associate Professor of Law

Laura Dassow Walls, William P. and Hazel B. White Professor of English

Henry Weinfield, Professor of Liberal Studies and Concurrent Professor of English

Thomas A. Werge, Professor and Concurrent Professor in the Master of Education Program

Matthew Wilkens, Assistant Professor

Katherine Zieman, Assistant Professor

History

Chair:

Patrick Griffin

Director of Graduate Studies:

Edward N. Beatty

Telephone: (574) 631-4262

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Location: 219 O'Shaughnessy Hall

Department E-mail: histdgs.1@nd.edu

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The Program of Studies

The graduate programs in history permit students to deepen their knowledge and understanding of selected historical specializations and to nourish the historical perspective that marks the educated citizen. Advanced work in history may prepare students for careers in scholarship and teaching, for certain public service careers, or for careers in research.

The history programs accept only students planning to pursue the Ph.D. degree. These students are normally awarded a master's degree in the course of pursuing their doctorates.

Fields of Study

Command of four fields of study is a requirement of the program for both teaching and research. While these fields may be distributed within our traditional areas of concentration — modern Europe, Latin America, medieval, and Anglo-America/US — two or three fields should be in one of those concentrations. One field — an “outside” field — should be in a separate area of concentration or on a relevant methodology. Students are

encouraged to develop at least one topical comparative field — e.g., the Atlantic or Pacific, borderlands, colonialism, empire, the environment, exploration, frontiers, law, gender, religion, or slavery.

General Requirements

Before completing their doctorates, students must satisfy the departmental requirements for the master's degree. Doctoral students receive their master's after completing 33 credit hours of study including one graduate-level seminar in history and 24 credit hours of graduate-level work (seminars, colloquia, directed readings, supplemental research, and readings) in history or related disciplines. The master's degree demands satisfactory completion of course work with a GPA of no less than 3.0. Students must also pass an M.A. exam (normally the candidacy exams count in place of a separate M.A. exam) and satisfy the language requirements (see below). In order to enter the doctoral program, students must satisfy the foreign language requirement and receive the approval of the departmental faculty. Students entering Notre Dame with a master's degree in history from another institution normally have the same course work, writing, and examination requirements as those entering without such a degree. Normally, no more than three credits may be transferred and used to replace required courses in history.

In order to receive a Ph.D., a student must complete a total of 42 credit hours of study, including at least two graduate-level seminars.

In addition to completing prescribed course work, doctoral students must also pass Ph.D. candidacy examinations in their specialties. The candidacy examination will normally be taken in the student's third year of residence. Students wishing to take candidacy examinations earlier than the third year of residence may do so with the consent of their academic advisers and the director of graduate studies. To be eligible to take the candidacy examination, students must satisfy the foreign language requirement and complete the required course work in their specialization.

Before being advanced to Ph.D. candidacy, students must submit to the depart-

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ment an approved dissertation proposal (see procedures outlined below). Within eight years of enrollment into the history graduate program, students must complete a satisfactory doctoral dissertation or risk the loss of their candidacy status.

Language Requirement

One basic requirement for all candidates for the doctorate in history is a reading knowledge of one modern foreign language. In each field additional languages or an appropriate skill are prescribed as the faculty in that field consider necessary. The following provisions are in force. Candidates in the field of medieval history must demonstrate competence in Latin and two modern foreign languages, one of which is normally French or German. Competence in Latin is demonstrated by a student's passing the examination in medieval Latin administered by the Medieval Institute. Candidates in modern European history must demonstrate competence in reading two foreign languages, one of which must be French or German. Candidates in American history must demonstrate competence in one modern foreign language. Candidates in Latin American history must demonstrate competence in two foreign languages, one of which must be Spanish. In all fields, language and skill requirements must have been completed by the student before the student will be permitted to take Ph.D. candidacy examinations.

To receive the M.A., doctoral students must demonstrate a reading knowledge of one modern foreign language by the end of their third semester in residence.

Examinations

First-year examinations are oral examinations administered near the end of the student's second semester of residence. The examination board will consist of two faculty members who have worked with the student during the year. Each faculty member may pose questions based on student course work during the year. The first-year examination will last approximately one hour. The first-year examination does not take the place of a master's exam.

Students will normally receive their master's degree upon successful completion of their Ph.D. candidacy examinations. A terminal master's degree may be awarded in cases where a student has completed all course work, passed at least one language exam (Latin in the case of Medievalists), and passed a master's examination, which is normally the equivalent of two qualifying exam fields in the normal format—a two-hour written examination in each field followed by a sixty-minute to ninety-minute oral exam. For the degree to be awarded, both examiners must pass the student.

Ph.D. candidacy boards will consist of four or five faculty members chosen by the student and his/her adviser, and approved by the director of graduate studies. The written exam shall consist of four or five two-hour essays on topics selected by the examination board within fields chosen by the student; the oral exam shall involve questioning by the board for not less than 90 minutes and not more than three hours. There must be a gap of at least five working days between the final written exam and the oral exam.

Students who fail a Ph.D. candidacy examination may appeal to the director of graduate studies to retake the failed portion one time.

Advancement to Candidacy for the Ph.D.

While preparing for the Ph.D. candidacy examinations, students should also be preparing a dissertation proposal in consultation with his or her adviser. Dissertation proposals are normally submitted to a committee of four faculty members — at least three of whom are History Department teaching and research (T & R) faculty — by the end of the semester in which the student passes qualifying exams. Dissertation proposals should aim for a length of ten pages plus bibliography and should include a clear statement of the historical problem engaged by the

dissertation, a summary of the dissertation's relationship to the literature in the field, a description of sources and their location and availability, a discussion of methodology and theory informing the project, a preliminary outline of chapters, and a bibliography. The committee may accept, reject, or modify the proposal. If and when a proposal is accepted, the committee will notify the director of graduate studies who will, in turn, nominate the student to the Graduate School as a Ph.D. candidate. The proposal must be approved before the start of the student's seventh semester of enrollment. Upon passage of the qualifying exams and dissertation proposal defense a student advances to Ph.D. candidacy ("all but dissertation," or ABD) and earns a master's degree.

Writing and Defense of the Dissertation

After advancement to Ph.D. candidacy, students must complete a doctoral dissertation, which the department understands to be a substantial piece of research based on primary sources that makes an original contribution to historical knowledge. Departmental procedures for approval of the dissertation are as follows:

Ph.D. candidates are strongly encouraged to consult with their committee members over the course of research and writing. Candidates should submit draft chapters to all members of the committee as early as possible. Copies of the completed dissertation, including notes and bibliography, must be submitted to all four (five if there are co-directors) committee members at least six weeks prior to the expected date of defense. Copies for the committee members should be submitted to the Department's administrative assistant for graduate studies. S/he will insure that copies reach the faculty members and alert each of them to the time-line and requisite written evaluation that must be signed and received two weeks before a defense can take place. At the same time, the candidate should submit an additional copy to the Graduate School for a preliminary check of formatting. Committee members must read the dissertation and approve or disapprove it within four weeks of receiving the final copy of the dissertation. Approval means that committee members agree to move forward to the defense; it does not mean that they are giving their final approval for award of the

degree based on the dissertation. Approval endorses the dissertation as academically sound and defensible. Formal and final approval can come only after the defense. Committee members may approve the dissertation conditional on revision. In those cases where the defense reveals areas for necessary revision, the candidate must complete those to the satisfaction of the adviser. Only after the adviser signs the title page can the dissertation be submitted to the Graduate School. Candidates should keep this process in mind and allow sufficient time to meet deadlines for graduation. Committee members should not feel obliged to speed up the process to accommodate such deadlines. It is the candidate's responsibility to meet deadlines.

Teaching and Research Faculty

R. Scott Appleby, the John M. Regan Jr. Director of the Joan B. Kroc Institute for International Peace Studies, and Professor of History

Edward N. Beatty, Associate Professor

Gail Bederman, Associate Professor

Rev. Thomas E. Blantz, C.S.C., Professor

Catherine Cangany, Assistant Professor

Jon T. Coleman, Associate Professor

Olivia R. Constable, Professor and Director of the Medieval Institute

John Deak, Assistant Professor

Lauren Faulkner, Assistant Professor

Felipé Fernandez-Armesto, William P. Reynolds Professor

Karen Graubart, Carl E. Koch Associate Professor

Brad S. Gregory, Dorothy G. Griffin Associate Professor of Early Modern European History

Patrick Griffin, Chair and Madden Hennebry Professor of Irish American Studies

Christopher S. Hamlin, Professor

Asher Kaufman, Associate Professor

Thomas A. Kselman, Professor

Mikolaj Kunicki, Assistant Professor

Semion Lyandres, Associate Professor

Sabine G. MacCormack, Rev. Theodore Hesburgh, C.S.C. Professor of Arts and Letters

Alexander M. Martin, Associate Professor

John T. McGreevy, I.A. O'Shaughnessy Dean of the College of Arts and Letters, and Professor

Rebecca Tinio McKenna, Assistant Professor

Margaret Meserve, Associate Professor

Rev. Wilson D. Miscamble, C.S.C., Professor

Dian Hechtner Murray, Professor

Thomas F. X. Noble, Professor

Mark Noll, the Francis A. McAnaney Professor of History

Paul Ocobock, Assistant Professor

Jaime Pensado, Assistant Professor

Richard B. Pierce, Associate Professor

Linda Przybyszewski, Associate Professor

Rory Rapple, Assistant Professor

Marc S. Rodriguez, Assistant Professor

Thomas J. Schlereth, Professor

Jayanta Sengupta, Assistant Professor

James Smyth, Professor

Robert E. Sullivan, Associate Professor

Julia Adeney Thomas, Associate Professor

Deborah Tor, Assistant Professor

James Turner, the Rev. John J. Cavanaugh, C.S.C., Professor of the Humanities

John H. Van Engen, Andrew V. Tackes Professor of History

Gil-li Vardi, P. J. Moran Family Collegiate Chair in Military History and Assistant Professor

History and Philosophy of Science

Program Director:

Katherine Brading

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The Program of Studies

HPS at Notre Dame is an interdepartmental program. Because the Ph.D. in HPS incorporates the requirements for a doctorate in a standard disciplinary department, either history or philosophy, the HPS degree program leads to a doctoral degree inclusive of, but broader in scope than, the departmental degree. For this reason it is defined as a five-year program, rather than the normal four. Thus students who take the doctoral degree in the HPS program can claim to have satisfied both the disciplinary degree requirements and also those of an HPS degree. This allows Notre Dame graduates to situate their work within traditional disciplinary contexts and enables them to qualify for academic positions in regular disciplinary departments.

All designated HPS faculty members may serve as graduate student advisers, take part in examination committees, and act as the primary directors of dissertation research.

Master's Program

Because HPS is a doctoral program, applications from individuals interested only in receiving a terminal M.A. degree will not be accepted. However, this rule does not apply to individuals concurrently enrolled in other doctoral graduate programs of the University who seek to earn a nonresearch HPS master's degree in order to complement their doctoral studies. Students whose primary enrollment is in HPS will be entitled to receive a master's degree once they have completed the written and oral examination for Ph.D. candidacy. In addition, in the event that an admitted HPS student decides to leave the program or is subsequently discontinued by the HPS program or the disciplinary depart-

HISTORY AND PHILOSOPHY OF SCIENCE

ment, the student may pursue a research (or thesis) terminal M.A. degree.

The nonresearch HPS M.A. degree requires the completion of 36 credit hours of course work. Three courses in history of science and three courses in philosophy of science form the core of this requirement. The student, in consultation with the HPS program director, selects the remaining courses. To be eligible for HPS credit, these courses must bear in significant ways on the concerns of history and philosophy of science. Students taking the nonresearch HPS M.A. concurrently with a Ph.D. in another Notre Dame program may count up to nine hours of course work toward both degree programs, subject to approval by the director of HPS and the director of graduate studies in the other program. Reading knowledge in one foreign language (ordinarily French or German) will be required. A one-hour oral examination, based on course work, will complete the requirements for the nonresearch degree. Students taking the terminal HPS research M.A. will prepare an extended research paper or formal M.A. thesis under the direction of a faculty member, for which six hours of thesis credit will be awarded. A one-hour oral comprehensive examination completes the requirements for this research M.A. degree.

Doctoral Program

HPS students pursue the Ph.D. degree in either a philosophy track or a history track.

Philosophy Track

Those who elect the philosophy track toward the Ph.D. in history and philosophy of science must satisfy the following course distribution requirements. In HPS, they will take a minimum of three courses in the general area of philosophy of science and four courses in history of science. In addition, students will satisfy a slightly modified form of the philosophy graduate program's requirements, namely, (i) proseminar; (ii) graduate logic course, (iii) four "distribution" seminars, including philosophy of science, at least one from "Area I"—philosophy of mind, metaphysics, epistemology, philosophy of language, philosophy of science, philosophy of logic, philosophy of mathematics—and at least one from "Area II"—ethics,

political philosophy, aesthetics; and (iv) three history seminars to be distributed among at least two of the major historical periods—ancient, medieval, and modern. Note that philosophy-track HPS students may substitute HOPOS II for a history of modern course. Students may also be advised to take some extra work in one of the sciences, if this seems necessary for the specialized research they are planning. The language requirement for Ph.D. candidates in the philosophy track is a reading knowledge of two foreign languages.

Ethics of Science and Technology Concentration

Students on the philosophy track who elect the ethics of science and technology concentration will satisfy the philosophy-track course requirements, but with the following exceptions: (1) the student will take at least four courses in ethics or science and ethics; (2) 20th-Century Ethics will be taken as one of the three required philosophy core courses; (3) one of the four required history of science courses will be selected from a specified list of courses in the area of science, technology, and values; and (4) an additional course in ethics will be chosen from a specified list of philosophy courses.

No later than the summer after his or her second year, the philosophy-track student will take a written qualifying examination in the history of philosophy administered by the Philosophy Department. By the end of his or her third year, the student will also be expected to have two "qualifying" papers approved (see philosophy doctoral requirements). Normally in the first semester of the fourth year, the student will take an oral qualifying examination in the philosophy of science, with a special focus on the problem area in which he or she intends to write a dissertation. The five members of the examination board will be appointed jointly by the HPS program director and the director of graduate studies in philosophy.

Once Ph.D. candidacy requirements have been completed, the student will begin preparation of a dissertation proposal under the guidance of a research director of his or her choice. A proposal evaluation committee, consisting of five faculty, will be chosen jointly by the HPS program director, the student's research director, and the DGS in philosophy. After meeting with the student to discuss the proposal,

the committee will decide, by majority vote, to approve, reject, or request modifications in the candidate's proposal. The Graduate School requires that dissertation proposals be approved by the end of the eighth semester in order for one to be eligible for continued funding. When the proposal is approved, the student will work under the direction of his or her thesis director to prepare a dissertation. New work must be submitted every semester. At the end of each semester, the student must submit a report on dissertation progress to the dissertation director, the Director of HPS and the philosophy department DGS. The report must include a chapter outline and a statement of progress on each chapter. The student must also meet at the end of each academic year with the members of the dissertation committee. The completed dissertation must be approved by the dissertation director and three readers appointed by the HPS program director. Readers are normally drawn from the committee that approved the original proposal, but one outside member of the committee may be substituted if deemed desirable for expert judgment of the dissertation. If the readers accept the dissertation, the HPS program director arranges for a dissertation defense. The defense committee is composed of at least the dissertation director, the three dissertation readers, and an outside chairperson appointed by the Graduate School. After the defense and ensuing discussion, the committee decides by majority vote whether the defense of the dissertation project has been satisfactory and determines whether any revisions of the dissertation are required as a result of weaknesses revealed in the oral defense.

History Track

Those who elect the history track toward the Ph.D. in history and philosophy of science will take a minimum of four courses in history of science, the history department proseminar, and three courses in the general area of philosophy of science. In addition, a student will take at least eight more courses (three of which must be research seminars) in two of these fields: American, Modern European, or Medieval History. These eight courses can include the history of science and technology.

The basic language requirement for Ph.D. candidates on the history track is a reading knowledge of one modern foreign language. In addition, competence has to be shown either in a second language or in a technical discipline bearing on the student's research work, such as one of the natural sciences.

In the spring of the third year, the student will prepare for the Ph.D. candidacy examination, taken in the late summer. This will consist of two parts, written and oral. The examination board will consist of five faculty members appointed jointly by the HPS program director and the director of graduate studies in history. Each examiner will set a two-hour written examination in one of five fields, two of which will be in specialized areas in the history of science and technology, two in other history fields, and one in the philosophy of science. The oral examination will be given shortly after the written and will involve the same five examiners.

Once Ph.D. candidacy requirements have been completed, the student will begin preparation of a dissertation proposal under the guidance of a research director of his or her choice. This is presented to a proposal evaluation committee, consisting of five faculty chosen jointly by the HPS program director, the student's research director, and the DGS of history. After meeting with the student to discuss the proposal, the committee will decide, by majority vote, to approve, reject, or request modifications in the candidate's proposal. The Graduate School requires that dissertation proposals be approved by the end of the eighth semester in order for one to be eligible for continued funding. When the proposal is approved, the student will work under the direction of his or her thesis director to prepare a dissertation. New work must be submitted every semester. At the end of each semester, the student must submit a report on dissertation progress to the dissertation director, the Director of HPS and the history department DGS. The report must include a chapter outline and a statement of progress on each chapter. The student must also meet at the end of each academic year with the members of the dissertation committee. The completed dissertation must be approved by the dissertation director and three readers appointed by the HPS program director, normally drawn from

the committee that approved the original proposal. Substitution of one outside expert may be elected if deemed necessary for the student's dissertation work. If the readers accept the dissertation, the program director arranges for a dissertation defense. The defense committee is composed of at least the dissertation director, the three dissertation readers, and an outside chairperson appointed by the Graduate School. After the defense and ensuing discussion, the committee decides by majority vote whether the defense of the dissertation project has been satisfactory and determines whether any revisions of the dissertation are required as a result of weaknesses revealed in the oral defense.

Teaching and Research Faculty

J. Matthew Ashley, Associate Professor of Theology

Francesca Bordogna, Assistant Professor in the Program of Liberal Studies

Katherine A. Brading, Director of Graduate Studies and Associate Professor of Philosophy

Anjan Chakravartty, Professor of Philosophy

Jon Coleman, Associate Professor of History

Michael Crowe, John J. Cavanaugh Professor in the Humanities, Professor in the Program of Liberal Studies, and Concurrent Professor of History, Emeritus

Celia Deane-Drummond, Professor of Theology

Christopher B. Fox, Professor of English

Robert D. Goulding, Associate Professor in the Program of Liberal Studies

Gary M. Gutting, Professor of Philosophy

Christopher S. Hamlin, Professor of History

Don A. Howard, Professor of Philosophy

Lynn S. Joy, Professor of Philosophy

Janet Kourany, Associate Professor of Philosophy

A. Edward Manier, Professor of Philosophy, Emeritus

Kate Marshall, Assistant Professor of English

Vaughn R. McKim, Associate Professor of Philosophy, Emeritus

Philip E. Mirowski, the Carl E. Koch Professor of Economics

Grant Ramsey, Assistant Professor of Philosophy

Kristin Shrader-Frechette, the F. J. and H. M. O'Neill Professor of Philosophy, Concurrent Professor of Biological Sciences

Phillip R. Sloan, Professor in the Program of Liberal Studies and Concurrent Professor of History, Emeritus

Thomas A. Stapleford, Associate Professor in the Program of Liberal Studies

James C. Turner, the Rev. John J. Cavanaugh, C.S.C., Professor of the Humanities

Laura Dassow Walls, William P. and Hazel B. White Professor of English

Ph.D. in Literature

Program Director:

Joseph A. Buttigieg

Telephone: (574) 631-0481

Location: 336 O'Shaughnessy Hall

E-mail: litprog@nd.edu

Web: <http://phdliterature.nd.edu>

The Program of Studies

The Ph.D. in Literature offers an innovative academic framework for the formation of future scholar-teachers in both the classical and modern languages and literatures. During their first year of studies in the Ph.D. in Literature Program, students will work closely with the program's director to define their major fields or areas of interest. This will enable them to choose their courses in a coherent manner so that in the years devoted to coursework they will be able to simultaneously broaden and deepen their knowledge in their main fields of interest. There are many different ways to define and structure one's area of specialization and related fields. These fields of interest may be organized, for example, around historical periods, genres, literary movements, literary traditions and languages, geographical areas, inter-

PH.D. IN LITERATURE

disciplinary relations, literary theory and criticism. These are just some rather conventional examples, used here by way of illustration, but there are many other imaginative and creative ways to define one's interests and their combinations—and the Ph.D. in Literature Program is sufficiently flexible to accommodate a wide range of them.

The program requires its students to complete a minimum of 54 credit hours from regular graduate courses. Students who have obtained credits for graduate courses taken after their undergraduate degree and prior to entering the program may be allowed to transfer a maximum of 6 credit hours. Students who have completed an M.A. before entering the program may be allowed to transfer a maximum of 24 credit hours. The transfer of credit hours is not automatic and requires the approval of the program's director and the Graduate School.

During their first three semesters students are required to take the program's two basic courses: (a) the course in literary and critical theory, and (b) the course in literature that exemplifies transnational and/or interdisciplinary approaches to literary studies.

All students are also required to take two courses in disciplines other than literature. This requirement is typically fulfilled by taking courses in philosophy and theology.

In both their second and third year of study students are required to enroll in the year-long course (1.5 credits per semester) "Learning the Profession." Students may opt to take this course on an S/U basis, in which case the credits earned will not count towards the 54 credits of coursework required by the program.

Languages

All students in the Ph.D. in Literature Program are expected to be able to read and conduct research in at least two languages besides their own native language.

Students are minimally required to demonstrate near-native proficiency in the language of their major area of study and a scholarly reading knowledge in an additional language. The language skills required will vary according to the individualized program of study. Language requirements are designed to provide a rigorous base for in-depth study

of two or more literary traditions and to ensure that students will successfully compete for placement in national literature departments as well as interdisciplinary programs.

Examinations

The Permission to Proceed Exam is administered during the week immediately before the beginning of classes in the Spring semester of the student's second year in the program. The exact date is set by the program director at the start of each academic year. (After seeking the advice of the program director, a student may opt to take the exam earlier.)

The Graduate School requires all doctoral candidates to complete their Ph. D. candidacy exam by the end of their fourth year of study. This deadline, however, represents nothing more than the utmost limit of acceptability. Students in the Ph.D. in Literature Program are strongly advised to organize and structure their coursework in a manner that permits them to sit for the candidacy exam in their third year.

Participating Faculty

The following is a partial list of Notre Dame faculty who have worked closely with the Ph.D. in Literature Program. They form a core group of outstanding scholars who will be joined by numerous other faculty whose interests and expertise will enable students to craft doctoral degrees responsive to their own particular interests in world literatures. For a complete listing of participating faculty and their scholarly interests and current graduate students please visit our Web site at <http://phdliterature.nd.edu>.

Associated Teaching and Research Faculty

José Anadón, Professor, Department of Romance Languages and Literatures

Thomas Anderson, Dr. Scholl Associate Professor of Romance Languages and Literatures

Martin Bloomer, Associate Professor of Classics

Tobias Boes, Assistant Professor, Department of German Language and Literature

Maureen Boulton, Professor of French, Department of Romance Languages and Literatures

Keith R. Bradley, the Eli J. and Helen Shaheen Professor of Classics and Concurrent Professor of History

Joseph A. Buttigieg, Director of the Ph.D. Program in Literature, the William R. Kenan Jr. Professor of English and Fellow in the Nanovic Institute for European Studies

Theodore J. Cachey Jr., Professor of Italian, Albert J. Ravarino Family Director of Dante and Italian Studies, and Chair, Department of Romance Languages and Literatures

James Collins, Professor, Department of Film, Television, and Theatre

Seamus Deane, the Donald and Marilyn Keough Professor of Irish Studies and Professor of English

JoAnn DellaNeva, Professor, Department of Romance Languages and Literatures Fellow, the Kaneb Center for Teaching and Learning Fellow, the Nanovic Institute

Margaret Doody, the John and Barbara Glynn Family Professor of Literature

Julia V. Douthwaite, Professor of French, Department of Romance Languages and Literatures

Christopher Fox, Director of the Keough Institute for Irish Studies, Professor of English and Chair of Irish Language and Literature

Stephen Gersh, Professor, Department of Philosophy

Thomas Hall, Associate Professor, Department of English

Ben A. Heller, Associate Professor, Department of Romance Languages and Literatures, Co-Director, Fernández Caribbean Initiative Fellow, Kellogg Institute for International Studies

Peter Holland, McMeel Family Professor in Shakespeare Studies, Department of Film, Television and Theatre

Vittorio Hösle, Paul G. Kimball Professor of Arts and Letters, Director, Notre Dame Institute for Advanced Study, and Professor of German

Lionel M. Jensen, Associate Professor of East Asian Languages & Culture, Concurrent Associate Professor of History, and Fellow in the Helen Kellogg Institute for International Studies

Kathryn Kerby-Fulton, Professor of English

Declan Kiberd, Endowed Professor, Donald and Marilyn Keough Professor of Irish Studies

Silvia Li-chun Lin, Associate Professor, Department of East Asian Languages & Culture

Kate Marshall, Assistant Professor of English

Christian Moevs, Associate Professor, Department of Romance Languages and Literatures, and Fellow of the Medieval Institute

Vittorio Montemaggi, Assistant Professor of Religion and Literature, Department of Romance Languages and Literatures

Bríona Nic Dhiarmada, Endowed Professor, Notre Dame Chair in Irish Language and Literature

Robert E. Norton, Chair and Professor of German and Russian Languages and Literatures (German) and Fellow in the Nanovic Institute for European Studies

Brian Ó Conchubhair, Assistant Professor of Irish Language and Literature

Diarmuid Ó Giolláin, Professor of Irish Language and Literature

Catherine Perry, Associate Professor of French, Department of Romance Languages and Literatures

Maria Rosa Olivera-Williams, Associate Professor, Department of Romance Languages and Literatures

Alison Rice, Assistant Professor, Department of Romance Languages and Literatures

Mark W. Roche, The Rev. Edmund P. Joyce, C.S.C. Professor of German Language and Literature, Concurrent Professor of Philosophy

Dayle Seidenspinner-Núñez, Associate Dean; Professor of Spanish, Department of Romance Languages and Literatures

Steve Tomasula, Associate Professor, Department of English and Director of Graduate Studies in Creative Writing

Isabelle Torrance, Assistant Professor, Department of Classics

Alain Toumayan, Professor of French, Department of Romance Languages and Literatures, Director, Program in Philosophy and Literature and Fellow in the Nanovic Institute for European Studies

John Welle, Professor of Italian, Department of Romance Languages and Literatures

Medieval Studies

Director and Director of Graduate Studies:

Olivia Remie Constable

Telephone: (574) 631-6603

Fax: (574) 631-8644

Location: 715 Hesburgh Library

E-mail: medinst@nd.edu

Web: <http://www.nd.edu/~medinst>

The Program of Studies

The Medieval Institute offers a doctor of philosophy degree in medieval studies. After two years of course work, and completion of examinations in the third year, students earn a master of medieval studies (hereafter M.M.S.) degree and are approved for further work towards the Ph.D. The Institute does not accept candidates for a terminal master's degree. The programs of the Medieval Institute are rigorous and interdisciplinary, and make high demands in terms of language skills. The degree requires a specified number of credit hours, language exams, oral and/or written exams, proficiency in paleography, and research projects.

Consult the *Medieval Institute Graduate Handbook* for details regarding course requirements and academic milestones.

After acceptance of the dissertation proposal at the start of the fourth year, most students will require three or four years to complete the dissertation. It is not unusual for a satisfactory student to take six or seven years, from start to finish, to achieve the doctorate in Medieval Studies.

The Second Year Project

A general statement of topic for the second-year project, with signed adviser approval, is due on May 1st of a student's first year.

Ideally, this project will have an interdisciplinary component, but this is not required.

The second year project may take many forms, but it should be an extended piece of original research paper that makes a contribution in its field. Because it is important for a student to have publications on his/her curriculum vitae, it is strongly encouraged that the second year project be taken as an opportunity to get a start on a publishable article.

The second year project may originate in a seminar paper, master's thesis, or other previous work, but it should significantly expand on this earlier project. Alternatively, it may represent research in a new area that a student wishes to explore. The second year paper may investigate a potential dissertation topic, and may be related to later dissertation work.

Normally (but not necessarily), the adviser on the second year project will be the professor with whom the student expects to write the dissertation.

The Medieval Institute holds an annual public colloquium each April for second-year students to give formal presentations on their research projects to the Medieval Institute community.

The second year project must be completed and deemed satisfactory by two readers (the adviser plus one other reader in the field) by the end of the second year. If the two readers disagree, then the Medieval Institute graduate committee will also read the paper. Completed projects are due by April 15th of the second year. No incomplete grades are allowed, except in extraordinary circumstances. If the project is not complete and satisfactory, a student may not continue into the third year.

Language Requirements

Each student must pass a written exam in her/his primary medieval research language (Latin, Greek, or Arabic) before the

MEDIEVAL STUDIES

end of the second year of study. This exam must be passed by the end of the fourth semester in order for a student to continue in the program.

A student should plan to take the exam in his/her medieval research language every semester until it is passed.

Students must pass written exams in two modern languages before taking their comprehensive exams in the third year (i.e., by the end of the fifth semester).

Although no further language tests are required, most students will need competence in more than one medieval research language and more than two modern languages.

The Medieval Institute's M.M.S.-level Latin examination will be administered each fall semester in the week after Thanksgiving and each spring semester in the week after spring break. Examinations in Greek and Arabic will be arranged on an individual basis.

Courses and Distribution

As well as distribution requirements within the Medieval Institute (two research languages courses, one paleography, one history, one philosophy or theology, one art history or music, one vernacular language or literature), students have a number of electives. It is expected that most of these will be in a student's chosen discipline, and they should also include at least one or two non-medieval courses in this discipline. These non-medieval courses should be chosen in consultation with the student's adviser and with the DGS in the relevant department in order to conform to expectations in that field. For example, a student hoping for a job in an English department may want to take a course in modern literary theory, etc.

Remaining courses (four to six electives, plus the second year project) are presumed to be on medieval topics in the student's chosen discipline, but some of these may be in another field if appropriate.

Students who enter the program with a completed M.A. degree may petition the DGS to transfer up to two courses (six credits) from their M.A. program. Transferring credits allows more flexibility in

our program and can slightly accelerate a student's progress.

The Doctor of Philosophy in Medieval Studies

The Ph.D. requires satisfactory completion of the curriculum outlined above, successful completion of five written Ph.D. candidacy examinations (one of three hours' and four of two hours' duration), one oral Ph.D. candidacy examination (normally of 90 minutes' duration), presentation of a dissertation proposal, presentation and defense of a satisfactory dissertation.

In early May each year the director and the graduate committee will review the accomplishments of the members of the third-year class. There will be three possible recommendations.

1. Permission to proceed to the dissertation proposal.
2. Requirement to re-take the Ph.D. examinations in the following September with the possibility at that time to recommend continuation or dismissal.
3. Dismissal with an M.M.S. degree.

The dissertation proposal is expected to be submitted not later than the first day of the fall semester of the student's fourth year. The dissertation proposal should be 12 to 15 pages, plus 3 to 5 pages of annotated bibliography. The proposal should answer three basic questions: What questions/problems/issues will this dissertation address? Why should this dissertation be written at all, in other words what will be its original and significant contribution to scholarship? What is the envisaged plan of work?

Proposals will be discussed in a 60 to 90 minute session with the adviser, the director (if he or she wishes to attend), another professor from the field of emphasis, and the interdisciplinary examiner from the Ph.D. exams (or an appropriate substitute).

When a student and his or her adviser agree that a dissertation is ready to be defended, documents should be filed in the Medieval Institute and the Graduate School to initiate a defense. Defense committees will consist of four members

of the faculty: the student's adviser; and three chosen by the student and his or her adviser in consultation with the director. The director may appoint him/herself as an examiner of any dissertation submitted to the Medieval Institute. At least one dissertation examiner must come from a department other than the one in which the student's field of emphasis resides. A student may petition the director and the Graduate School to have one examiner from outside the University. In such cases, the Medieval Institute will sustain reasonable costs for such an outside examiner.

Fields of Study

"Fields" represent segments of vast disciplines. No student, or professor, can be expected to know all there is to know within any one of them. Accordingly, fields will be defined, for purposes of study and examination, by reading lists created by students in close consultation with their professors. A student whose primary discipline is, say, history, will choose at least three fields within history (and may, for Ph.D. candidacy exams choose another field in history outside the Middle Ages). Reading lists may emphasize primary sources, exciting recent scholarship, classic works of scholarship, or a combination of the three. Required reading may mean either books or articles. Students and faculty members will be expected to strike the appropriate balance depending upon the needs and traditions within particular academic fields. As rough guidelines, M.M.S. lists should amount to 25-30 primary texts or books (or the equivalent in articles) and Ph.D. lists should amount to 50 to 60 primary texts or books (or the equivalent in articles).

Consult the *Medieval Institute Graduate Handbook* for a current listing of available fields.

Faculty Fellows of in the Medieval Institute

Rev. Joseph P. Amar, Professor of Classics and Concurrent Professor of Theology

Ann Astell, Professor of Theology

Yrui Avvakumov, Assistant Professor of Theology

Zygmunt G. Baranski, Notre Dame Professor of Dante and Italian Studies

MEDIEVAL STUDIES

Charles E. Barber, Professor of Art, Art History, and Design

Alexander Blachly, Professor of Music

W. Martin Bloomer, Associate Professor of Classics

D'Arcy Jonathan Boulton, Professor of the Practice of Medieval Studies

Maureen B. McCann Boulton, Professor of French Language and Literature

Keith R. Bradley, the Eli J. and Helen Shaheen Professor of Classics

Theodore J. Cachey Jr., Albert J. Ravarino Family Director of Dante and Italian Studies; Professor and Chair, Department of Romance Languages and Literatures

John C. Cavadini, Associate Professor of Theology, and Director of the Institute for Church Life

Robert R. Coleman, Associate Professor of Art, Art History, and Design, and Research Specialist in the Medieval Institute

Olivia Remie Constable, Professor of History and Robert M. Conway Director of the Medieval Institute

Richard Cross, Rev. John A. O'Brien Professor in Philosophy and Chair, Department of Philosophy

Rev. Brian Daley, S.J., the Catherine F. Huisking Professor of Theology

JoAnn DellaNeva, Professor of French Language and Literature

Rev. Michael S. Driscoll, Associate Professor of Theology

Stephen D. Dumont, Professor of Philosophy

Kent Emery Jr., Professor in the Program of Liberal Studies

Margot Fassler, Keough-Hesburgh Professor of Music History and Liturgy

Felipe Fernandez-Armesto, William P. Reynolds Professor of History

Alfred Freddoso, John and Jean Oesterle Professor of Thomistic Studies

Dolores Warwick Frese, Professor of English

Stephen E. Gersh, Professor and Concurrent Professor of Philosophy

Robert Goulding, Associate Professor in the Program of Liberal Studies and the Program in the History and Philosophy of Science

Karen B. Graubart, Carl E. Koch Associate Professor of History

Brad S. Gregory, Dorothy G. Griffin Associate Professor of Early Modern History

Li Guo, Associate Professor of Classics

Thomas N. Hall, Professor of English.

Peter Holland, McMeel Family Professor in Shakespeare Studies

Peter Jeffrey, Michael P. Grace Chair in Medieval Studies and Professor of Music

Rev. John I. Jenkins, C.S.C., President of the University and Professor of Philosophy

Danielle B. Joyner, Assistant Professor of Art, Art History, and Design

Encarnación Juárez-Almendros, Associate Professor of Spanish Language and Literature

Kathryn Kerby-Fulton, Notre Dame Professor of English

Mary M. Keys, Associate Professor of Political Science

Brian Krostenko, Associate Professor of Classics.

Ian Kuijit, Professor of Anthropology

Blake Leyerle, John Cardinal O'Hara, C.S.C., Associate Professor of Theology and Concurrent Associate Professor of Classics

Sabine G. MacCormack, Rev. Theodore M. Hesburgh, C.S.C. Professor of Arts and Letters in History and Classics

Julia Marvin, Associate Professor in the Program of Liberal Studies

Peter McQuillan, Chair of the Department of Irish Language & Literature and Associate Professor of Irish Language & Literature

Margaret H. Meserve, Associate Professor

Christian R. Moevs, Associate Professor of Italian Language and Literature

Vittorio Montemaggi, Assistant Professor of Religion and Literature

Candida R. Moss, Assistant Professor of Theology

Hildegund Müller, Associate Professor of Classics

Thomas F. X. Noble, Professor of History

David O'Connor, Associate Professor of Philosophy and Concurrent Associate Professor of Classics

Mark C. Pilkinton, Professor of Film, Television, and Theatre

Jean Porter, John A. O'Brien Professor of Theology

Rory Rapple, Assistant Professor of History

Gretchen J. Reydams-Schils, Professor in the Program of Liberal Studies

Gabriel Said Reynolds, Associate Professor of Islamic Studies and Theology

Robert E. Rodes, Jr., the Paul J. Schierl/Fort Howard Corporation Professor of Legal Ethics

John Roos, Professor of Political Science

Charles M. Rosenberg, Professor of Art, Art History, and Design

Dayle Seidenspinner-Núñez, Professor of Spanish Language and Literature

Susan Guise Sheridan, Associate Professor of Anthropology

Deborah Tor, Assistant Professor of History

John Van Engen, the Andrew V. Tackes Professor of History

Joseph Wawrykow, Associate Professor of Theology

Albert K. Wimmer, Associate Professor of German Language and Literature

Robin Darling Young, Associate Professor of Theology

Katherine G. Zieman, Assistant Professor of English

PHILOSOPHY

Philosophy

Chair:

Richard Cross

Director of Graduate Studies:

Sean Kelsey

Telephone: (574) 631-4278

Fax: (574) 631-0588

Location: 100 Malloy Hall

E-mail: ndphilo@nd.edu

Web: <http://www.nd.edu/~ndphilo>

The Program of Studies

For the doctorate a student must complete 42 credit hours of graduate course work. Students who enter the doctoral program with an M.A. are normally excused from six to 12 credit hours of graduate course work. Any philosophy graduate student is permitted to take up to six credit hours of approved undergraduate course work in philosophy and up to six credit hours of course work in related fields to satisfy the 42 credit hours. Those who choose to concentrate in such specialized fields as logic and philosophy of science may be required to take courses in other departments in support of their specialization. Students are expected to maintain a minimum B average in all of their course work.

Course Requirements

Course requirements (aside from PHIL 85105) should be satisfied in the first two years, and must be satisfied in the first three years. A student must take 14 3-hour seminars, including those listed below.

- Proseminar (PHIL 83104), to be taken in the first semester
- Logic course (PHIL 83901, or more-advanced class with permission of DGS, or exam with permission of DGS)
- Distribution Seminars: Four seminars in different fields, including at least two from Area I and one from Area II.
 - Area I: Philosophy of mind, Metaphysics, Epistemology, Philosophy of Language, Philosophy of Science, Philosophy of Logic, Philosophy of Mathematics

- Area II: Ethics, Political Philosophy, Aesthetics
- History Seminars: Three seminars, to be distributed amongst at least two of the three historical periods (Ancient, Medieval, and Modern).
- Teaching courses (do not count toward the 14 required seminars)
 - TA Orientation (PHIL 85104), before or during the term in which a student first serves as a teaching assistant (typically taken in semester 3).
 - Teaching Practicum (PHIL 85105) before the student first teaches on his or her own responsibility (typically taken in semester 8)

Non-Course Requirements

History Exam

At the end of the summer following the first year of coursework, students are required to take a six-hour written exam in the history of philosophy. The exam is given in two parts, with three hours covering ancient and medieval philosophy, and three hours covering modern philosophy. This requirement, together with the Oral Comprehensive Exam (see below) constitute the candidacy examination for the Ph.D.

Language Requirements

Most students will require expertise in a foreign language, typically at least one of French, German, Greek, and Latin, in order to complete their research and to have the capacity for further scholarly work in their field. The dissertation director and Director of Graduate Studies will determine in each case the level of expertise required, and the student will not be permitted to defend the dissertation until demonstrating that level of expertise. The usual way of demonstrating sufficient expertise is by passage of the departmental translation exam by the end of the semester after the semester in which the dissertation proposal is approved. In individual cases, passage of the exam prior to approval of the dissertation proposal may be required.

Qualifying Papers

Two qualifying papers, each evaluated by a faculty member chosen by the students

with the approval of the DGS. The two papers must be evaluated by different faculty members. This requirement must be satisfied by the mid-point of the student's fourth semester.

Third-Year Advising and Oral Exam

Early in the third year, the student chooses an adviser to supervise independent reading in preparation for the oral exam. The DGS, in consultation with the student and the adviser, appoints an orals committee with whom the student consults in the preparation of an orals reading list. The committee and adviser must approve the reading list at least three months prior to the exam. The committee consists of five faculty members including the adviser. The reading list for the oral exam should be designed to provide general coverage of the chosen area, typically the area of intended thesis research. It need not reflect the choice of a specific thesis topic. The oral exam will test the student's mastery of the literature on the reading list, and the student's capacity to engage, and defend views regarding, the topics treated in that literature. The exam lasts one-and one-half hours. The exam must be taken before the end of the sixth semester. Areas of concentration available in the department for the oral examination and for subsequent dissertation research include:

Ancient philosophy
 Medieval philosophy
 History of modern philosophy
 Contemporary European philosophy
 Epistemology
 Ethics
 Logic
 Metaphysics
 Philosophy of language
 Philosophy of mathematics
 Philosophy of mind
 Philosophy of religion
 Philosophy of science
 Political philosophy

Dissertation Proposal

A dissertation proposal must be approved by the student's Proposal Committee by the end of the seventh semester. The length of the proposal is determined by the adviser and the proposal committee; a minimum length is 2-3 pages. The Dissertation Proposal Committee is appointed by the Director of Graduate Studies and consists of the dissertation director to-

PHILOSOPHY

gether with four other members of the faculty. No more than one member of this committee may come from outside the Philosophy Department. The dissertation proposal counts as “approved” when all five members of the committee have approved it. Once the dissertation proposal is approved, a meeting is scheduled for the student and the committee in order for the committee to provide guidance concerning the research and writing of the dissertation.

Dissertation and Post-Third-Year Advising Requirements

Beginning in the fourth year, and until the thesis is completed, the student must provide a report on dissertation progress at the end of each semester. This report must include a chapter-outline and a statement of the progress made on each chapter. This report is to be submitted to the thesis adviser and DGS. New work must be submitted at least once per semester. This work is to be submitted to the thesis adviser, with a copy to the DGS when requested. Also beginning in year 4, and until the thesis is completed, the student must meet with his or her committee members at the end of each academic year. When the dissertation is completed and approved by the dissertation director, three copies are submitted to the Director of Graduate Studies. These are distributed to three readers, chosen by the DGS in consultation with the student and dissertation director. The readers will ordinarily be chosen from the members of the Dissertation Proposal Committee. No more than one reader may be from outside the Philosophy Department. After the three readers have approved the dissertation, the Philosophy Department and the Graduate School will arrange for a dissertation defense. The director and readers may require revisions of the dissertation as a result of weaknesses revealed in the oral defense. At the end of the defense, the director and readers decide whether the student has passed or failed the defense. Three votes out of four are required to pass the defense.

Evaluation

The faculty as a whole periodically evaluates the progress of all students. Evaluations focus on students’ performance in courses, in non-course requirements, and in their roles as teaching assistants and

teachers. If the faculty judge at any stage that a student’s progress is unsatisfactory, the student may be required to terminate his or her graduate studies. A student may receive a nonresearch M.A. degree in philosophy after finishing 27 credit hours of graduate course work and passing a special M.A. oral candidacy examination. Continuing students may receive a nonresearch M.A. upon successful completion of the written Ph.D. candidacy examinations (history exam) and 27 credit hours of graduate course work.

Further details regarding requirements, and regarding the department’s many special programs and activities, can be found on the department’s website.

Teaching and Research Faculty

Karl Ameriks, the McMahon-Hank Professor and Fellow in the Nanovic Institute for European Studies

Robert Audi, the John A. O’Brien Professor of Philosophy

Timothy Bays, Associate Professor

Patricia A. Blanchette, Associate Professor

Katherine Brading, Director of Graduate Studies in History and Philosophy of Science and William J. and Dorothy K. O’Neill Associate Professor of Philosophy

Anjan Chakravartty, Professor

Richard Cross, Chair and the John A. O’Brien Professor of Philosophy

Marian A. David, Professor

Cornelius F. Delaney, Professor

Michael R. De Paul, Professor

Michael Detlefsen, McMahon-Hank Professor of Philosophy

Stephen D. Dumont, Professor

Thomas P. Flint, Professor

Curtis Franks, Assistant Professor

Alfred J. Freddoso, the John and Jean Oesterle Professor of Thomistic Studies

Gary M. Gutting, Notre Dame Professor of Philosophy and Fellow in the Nanovic Institute for European Studies

Don A. Howard, Director of The Reilly Center for Science, Technology and Values and Professor

Rev. John I. Jenkins, C.S.C., President of the University and Professor

Lynn Joy, Professor

Joseph Karbowski, Assistant Professor

Sean Kelsey, Director of Graduate Studies and Associate Professor

Janet Kourany, Associate Professor

Michael J. Loux, the George N. Shuster Professor of Philosophy Emeritus

Alasdair MacIntyre, Rev. John A. O’Brien Senior Research Professor of Philosophy Emeritus

Samuel Newlands, Assistant Professor

John O’Callaghan, Associate Professor

David K. O’Connor, Associate Professor of Philosophy and Concurrent Associate Professor of Classics

Alvin Plantinga, the John A. O’Brien Professor of Philosophy Emeritus

Grant Ramsey, Assistant Professor

Michael C. Rea, Director of the Center for Philosophy of Religion and Professor

Fred Rush, Associate Professor

Kenneth M. Sayre, Professor

Kristin Shrader-Frechette, the F. J. and H. M. O’Neill Professor of Philosophy, Concurrent Professor of Biological Sciences, and Fellow in the Joan B. Kroc Institute for International Peace Studies

William D. Solomon, Associate Professor and the W. P. and H. B. White Director of the Center for Ethics and Culture

Jeffrey Speaks, John A. O’Brien Associate Professor of Philosophy

James P. Sterba, Professor and Fellow in the Joan B. Kroc Institute for International Peace Studies

Leopold Stubenberg, Associate Professor

Meghan Sullivan, Assistant Professor

Peter van Inwagen, the John Cardinal O’Hara Professor of Philosophy

Ted A. Warfield, Professor

Stephen H. Watson, Professor

Paul J. Weithman, Professor

Romance Languages and Literatures

Chair:

Theodore J. Cachey

Director of Graduate Studies:

Alain P. Toumayan

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Fax: (574) 631-3493

Location: 343 O'Shaughnessy

E-mail: romlang@nd.edu

Web: <http://www.nd.edu/~romlang>

The Program of Studies

The master's programs encourage the student to work closely with his/her adviser to design a course of study to suit individual needs, interests, and future goals. All candidates for an advanced degree are expected to take a minimum of 30 credit hours of courses in their field of specialization, including "Introduction to Literary Criticism" and a graduate course in comparative Romance literature.

During the second semester of the first year of graduate study, the student must pass an oral qualifying examination. The master's candidate will choose from a selection of texts and must demonstrate competency in analyzing a literary text in the target language before the graduate faculty. At this time, faculty members will discuss and evaluate the student's performance in the master's program.

Before taking the comprehensive written examination at the end of the second year, the student must demonstrate competency in a second foreign language by passing a reading exam or through successful completion of appropriate course work.

Students preparing for a career in teaching have the opportunity to teach several language courses before completion of the master's degree. A preliminary workshop, "Methods of Foreign Language Teaching"

and "Practicum in Teaching" are required of all graduate teaching assistants.

Program in French and Francophone Studies

Course requirements. All candidates for a master's degree in French and Francophone Studies are required to take a minimum of 30 credit hours or 10 courses, in addition to the required courses in pedagogy for teaching assistants (if applicable). "Introduction to Literary Criticism," required of all students, is taken during the first year of residence. In addition, the minimum of 10 courses includes at least six courses in French and Francophone literature and one course in comparative Romance literature. Two courses may be in a second national literature or in an allied field; students taking both courses in the same national literature or in comparative literature will be designated as having fulfilled a minor in that field. Occasionally, at the invitation of the program faculty, these two courses may instead be fulfilled by writing a master's thesis under the direction of a faculty member in the department. Two of the 10 courses may be at the 40000 level.

Comprehensive Master's Examination. For the final written examination, the student chooses five of seven fields (medieval, Renaissance, 17th century, 18th century, 19th century, 20th century, Francophone) in which to be examined. At least two of these five fields must be prior to the 18th century (i.e., medieval, Renaissance, or 17th century). Each area will be tested for a total of one hour.

Combined B.A./M.A. Program in French and Francophone Studies. The Department of Romance Languages and Literatures offers its majors in French the opportunity to participate in its graduate program through a combination B.A./M.A. degree in French. This program requires students to complete a first major in French (i.e., at least 30 hours of course work) during the normal four-year undergraduate period, followed by a total of 30 credit hours of graduate courses taken during the fourth and fifth years in residence. Six credit hours will be counted toward both the undergraduate and the graduate degrees. During their senior year, participants in this program complete two graduate courses, take the qualifying exam given

to all first-year graduate students, and apply to the Graduate School for admission during the spring semester. B.A./M.A. students are eligible for a teaching fellowship during their fifth year that includes a tuition waiver and a generous teaching stipend. Well-qualified students who are interested in this program should contact the director of graduate studies or the graduate coordinator in French at the beginning of their junior year.

Program in Italian Studies

Course requirements. All candidates for a master's degree in Italian Studies are required to take a minimum of 30 credit hours or 10 courses. "Introduction to Literary Criticism," required of all students, is taken during the first year of residence. The minimum of 10 courses includes four to six courses in Italian literature (two of these courses may be taken at the 40000 level) and one course in Comparative Romance Literature. The remaining credit hours may be fulfilled through Italian studies courses in Italian literature, history, art history, philosophy, music, architecture, and comparative literature.

Comprehensive Master's Examination. The written master's examination is four hours in length and covers the following areas: Medieval, Renaissance, 17th and 18th centuries, 19th century, and 20th century. The exam tests the candidate's knowledge of two areas of concentration and competency in the remaining fields.

Combined B.A./M.A. Program in Italian Studies. The Department of Romance Languages and Literatures offers its majors in Italian Studies the opportunity to participate in its graduate program through a combination B.A./M.A. degree in Italian Studies. This program requires students to complete a first major in Italian (i.e., at least 30 hours of course work) during the normal four-year undergraduate period, followed by a total of 30 credit hours of graduate courses taken during the fourth and fifth years in residence. Six credit hours will be counted toward both the undergraduate and the graduate degrees. During their senior year, participants in this program complete two graduate courses, take the qualifying exam given to all first-year graduate students, and apply to the Graduate School for admission during the spring semester. B.A./M.A.

students are eligible for a teaching fellowship during their fifth year that includes a tuition waiver and a generous teaching stipend. Well-qualified students who are interested in this program should contact the director of graduate studies or the graduate coordinator in Italian Studies at the beginning of their junior year.

Program in Iberian and Latin American Studies

Course requirements. All candidates for a master's degree in Iberian and Latin American Studies are required to take a minimum of 30 credit hours or 10 courses. "Introduction to Literary Criticism," required of all students, is taken during the first year of residence. The minimum of 10 courses includes at least six courses in Iberian and Latin American literature and one course in Comparative Romance Literature; when appropriate, a course in art, history, philosophy, or another allied field may substitute for the Comparative Romance Literature course with permission. Two of the 10 courses may be at the 40000 level.

Comprehensive Master's Examination. For the final written examination, the student will be examined in eight fields. The fields include: medieval, Golden Age, 18th- and 19th-century peninsular, 20th-century peninsular; colonial Spanish American, Independence through Realism/Naturalism, "modernism" through the Avant Garde, and contemporary Spanish American.

Combined B.A./M.A. Program in Iberian and Latin American Studies. The Department of Romance Languages and Literatures offers its majors in Spanish the opportunity to participate in its graduate program through a combination B.A./M.A. degree in Spanish. This program requires students to complete a first major in Spanish (i.e., at least 30 hours of course work) during the normal four-year undergraduate period, followed by a total of 30 credit hours of graduate courses taken during the fourth and fifth years in residence. Six credit hours can be counted toward both undergraduate and graduate degrees. During their senior year, participants in this program complete two graduate courses, take the qualifying exam given to all first-year graduate students, and apply to the Graduate School for admission during

the spring semester. B.A./M.A. students are eligible for a teaching fellowship during their fifth year that includes a tuition waiver and a generous teaching stipend. Well-qualified students who are interested in this program should contact the director of graduate studies and/or the graduate coordinator in Spanish at the beginning of their junior year.

Teaching and Research Faculty

José Anadón, Professor of Spanish

Thomas Anderson, Associate Professor of Spanish

Zygmunt Baranski, Notre Dame Professor of Dante and Italian Studies

Maureen B. McCann Boulton, Professor of French

Theodore J. Cachey Jr., Chair, Professor of Italian

JoAnn DellaNeva, Professor of French

Julia V. Douthwaite, Professor of French

Isabel Ferreira Gould, Assistant Professor of Portuguese and Brazilian Studies

Sabrina Ferri, Assistant Professor of Italian

Ben A. Heller, Associate Professor of Spanish

Kristine L. Ibsen, Professor of Spanish

Carlos Jerez-Farrán, Professor of Spanish Language and Literature

Carlos Jáuregui, Associate Professor of Spanish

Encarnación Juárez-Almendros, Associate Professor of Spanish

Louis A. MacKenzie Jr., Associate Professor of French

Christian R. Moevs, Associate Professor of Italian

Marisel Moreno-Anderson, Assistant Professor of Spanish

Vittorio Montemaggi, Assistant Professor of Religion and Literature

Maria Rosa Olivera-Williams, Associate Professor of Spanish

Catherine Perry, Associate Professor of French

Alison Rice, Assistant Professor of French

Dayle Seidenspinner-Núñez, Associate Dean, College of Arts and Letters, and Professor of Spanish

Alain P. Toumayan, Director of Graduate Studies, Professor of French

Juan Vitulli, Assistant Professor of Spanish

John P. Welle, Professor of Italian

Theology

Chair:

J. Matthew Ashley

Director of Ph.D. Program:

Timothy Matovina

Director of M.A. Program:

Catherine Cavadini

Director of M.Div. Program:

Rev. Msgr. Michael Heintz

Director of M.S.M. Program:

Margot Fassler

Director of M.T.S. Program:

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Master of Arts Program

The master of arts in theology is a terminal degree for individuals who desire advanced theological training. Graduates of this program should be able to serve as theological resources in variety of settings. Recipients of this degree will have received instruction in the classical areas of theological inquiry while acquiring expertise in one.

Program Description

The M.A. in theology is a 42 credit-hour degree. M.A. students may take courses during the summer and/or academic year for credit towards their degree.

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There are several areas of concentration for the M.A. in theology: general studies, biblical studies, catechesis studies, history of Christianity, liturgical studies, moral theology, systematic theology, and studies in spirituality.

Apart from liturgical studies, an area of concentration is normally constituted by:

- six courses (18 credits) in the area of concentration;
- one course each in five other areas (15 credits);
- three free electives (9 credits).

Liturgical Studies

Basic requirements (21 credits) include: Liturgical history, liturgical theology, ritual studies, Eucharist, Christian initiation, liturgical prayer, and liturgical year. Students in liturgical studies will also pursue one course each in five other areas (15 credits), and two free electives (6 credits).

Those needing a more general and flexible program of studies may pursue a general M.A. program, in which the course of study is planned in consultation with the director. The sole requirement is the inclusion of at least one course in each area of study. This may be of particular interest to those teaching theology in high school who wish to use the M.A. to enhance their effectiveness in teaching in a number of different areas.

Comprehensive Exams

In the last semester of course work, students should prepare five topics that they would like to explore in the comprehensive exams. These topics will guide both the student and the adviser in the construction of exam bibliographies. The student should then meet with the area adviser to refine these topics and construct her/his bibliography. A bibliography should be made up of 20 books, with 12 books from the bibliography in the area of concentration and two books from each of the other four areas. The bibliography should also contain five recent journal articles, so that students become acquainted with the journals in their fields of study. The bibliographies must be approved both by the area adviser and the M.A. director no later than one month before the student hopes to take exams. M.A. exams are given in November, April, and July. Stu-

dents must be enrolled and registered for a thesis research class during the semester they plan to take their exams.

The exam board, to be chosen by the M.A. director in consultation with the area adviser, will be made up of two faculty from the area of concentration, and one faculty from another area. Students pursuing the general M.A. degree may have an exam board chosen from three different areas. The student may confidentially choose the inclusion of one member of the board (subject to availability), and the exclusion of one faculty member. Each member of the exam board will submit three questions, framed in light of the five topics proposed by the student, to the area adviser, who will then formulate five questions, and submit them to the summer M.A. director for final approval.

The comprehensive exams themselves are made up of written and oral exams. The student will be asked to answer three of the five questions during the four-hour written exams, given on the Monday of exam week. These written answers will then be distributed to the board members, and will form the basis of the 40-minute oral exam on Wednesday or Thursday of the same week. During the oral exams, questions not answered by the student on the written exam may be addressed, as may books on the bibliography and courses taken by the student. Evaluation of the student's performance will be made on the basis of both the written and oral exams.

The Master of Theological Studies Program

The Master of Theological Studies (M.T.S.) program trains graduate students for future doctoral work in the various disciplines within the study of theology. The M.T.S. is a 48-credit-hour degree designed to give students exposure to the full range of theological studies while also allowing them to develop competence in an area of concentration and to improve their language abilities. Along with two years of full-time course work, the M.T.S. also includes participation in the master's colloquium, competency in one modern language, and the completion of a comprehensive oral exam to be given at the end of the second year of course work. The areas of Biblical studies and history of

Christianity also have ancient language requirements.

In all there are five areas of concentration in the M.T.S. program. Students must take at least 15 credit hours in the area of their concentration. In order to introduce every M.T.S. student to a wide range of theological education, each area of study also involves requirements in other areas, as detailed below. Students may choose from a broad range of courses offered at the 60000 level. They may also take Ph.D. seminars, provided they first secure the permission of the course instructor and the M.T.S. director.

Areas of Concentration

Biblical Studies: The concentration in Biblical Studies involves 15 credit hours in Biblical Studies, six credits in History of Christianity, and nine credits total in at least two other areas. In place of electives, Biblical Studies students will take nine credit hours in one ancient language (Greek, Hebrew, or Latin), and nine credit hours in another ancient language. There is no ancient language exam for the BS concentration.

History of Christianity: The concentration in history of Christianity involves 15 credit hours in history of Christianity (with the possibility of three to be taken outside the department), six in biblical studies, three in moral theology, three in liturgical studies, six in systematic theology, and six devoted to the study of ancient languages. Nine credit hours will be electives, to be distributed according to the interests of the students, and may include courses outside the Department of Theology (e.g., philosophy, medieval studies, history, art history, etc.), with the prior approval of the area adviser for the history of Christianity concentration and the M.T.S. director.

Liturgical Studies: The concentration in liturgical studies involves 15 credit hours in liturgical studies, six in biblical studies, six in history of Christianity, three in moral theology, six in systematic theology, six in one ancient language (Latin or Greek), and six credits in electives.

Moral Theology: The concentration in moral theology involves 15 credit hours in moral theology, nine in a second area,

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six in a third area, six in a fourth area, three in a fifth area, and nine credits of electives.

Systematic Theology: The concentration in systematic theology involves 15 credit hours in systematic theology, six in biblical studies, six in history of Christianity, six in liturgical studies, six in moral theology, and nine in electives, including three credit hours in Judaism.

Master's Colloquium

At least three times a semester all students in the M.T.S. program attend a colloquium and discuss a current student's presentation of original research pursued in collaboration with a faculty adviser. The colloquium is designed to familiarize M.T.S. students with the methods and content of the various areas of theological study, to demonstrate how these areas can be integrated, and to provide an experience of research and public presentation. Attendance is mandatory for all M.T.S. students.

Research Language Requirement

All M.T.S. students must pass a Graduate Reading exam in either German or French in order to graduate. Students who already know one of these languages upon admission to the program should take the Graduate Reading exam in that language in their first semester, and acquire a second language during their time in the program, in order to pass an exam in that language as well.

The University offers intensive language courses in German and French, free of tuition, every summer, with exams at the end of the course. Students who wish to acquire a language other than French or German during their time in the M.T.S. Program may petition the M.T.S. director for a substitution, based entirely on their future research interests.

Comprehensive Exams

Toward the end of the final semester of course work, M.T.S. students must pass an oral exam with a board of three faculty members. The exam measures students' competency in the area of concentration and their ability to think creatively and synthetically. The topics

of the exam are based on material the students themselves submit: two papers from coursework that reflect the nature of their research interests, the Statement of Intent for applications to Ph.D. programs, and a set of three to five questions which reveal the direction of their theological inquiry.

The Master of Divinity Program

The master of divinity (M.Div.) is a professional theological degree designed to prepare students for learned and effective ministry in the Roman Catholic Church, either as priests or as professional lay ministers. The studies of Scripture, the history of Christian tradition, systematic theology, liturgy, and Christian ethics are joined to field experience, training in pastoral skills, and vocational formation to form a comprehensive ministerial curriculum. Thus, the M.Div. aims at a comprehensive, holistic integration of the intellectual, pastoral, human and spiritual dimensions.

The Program of Studies

The program of studies leading to the M.Div. degree encompasses 83 semester credits and normally extends over six semesters. Credit requirements are allocated as follows:

Biblical studies	12 credits
Historical studies	6 credits
Systematic theology	15 credits
Christian ethics	6 credits
Canon law	3 credits
Liturgical studies	6 credits
Field education	10 credits
Pastoral studies	14 credits
Elective	9 credits
Synthesis seminar	2 credits

Field Education

Field education serves as an integral component in the theological and pastoral education of ministry students, as well as to their spiritual formation and vocational preparation. It provides those preparing for ministry varied opportunities for acquiring ministerial skills, for integrating their ministerial experiences through theological reflection, and ultimately for developing their ministerial

identities. To make these opportunities possible, field education consists of the following:

- weekly service at a ministerial site during each of the three academic years in the M.Div. program;
- regular individual supervision with an experienced mentor at the ministry site;
- weekly seminars utilizing case study method and conversations about contemporary theological and ministerial issues.

Formation

All M.Div. students participate in a program of human and spiritual formation suited to their particular vocational preparation, either as seminarians or as candidates for lay ministry. With the guidance of spiritual directors and formators, students are mentored in the life of faith, in their personal growth and in their vocational discernment. Regular joint formation events are held bringing all constituencies of the program together around shared issues and themes.

The Master of Sacred Music Program

The Master of Sacred Music (M.S.M.) is a ministerial leadership program that prepares students for pastoral liturgical music ministry. The program in sacred music is part of a larger initiative for liturgy and sacred arts. The graduate program is administered in the Department of Theology and overseen by an interdepartmental committee (Music/ Theology) and accreditation is granted through the Association of Theological Schools (A.T.S.). Following the principles of the document *Sing to the Lord* (USCCB, 2008), the program is multi-disciplinary, embracing in particular three dimensions: music, liturgy, and pastoral practice. The program strives to integrate these three dimensions, grounding the student professionally in liturgical music as a ministry.

The M.S.M. is a 48-credit-hour degree. Students are required to give two recitals or one recital and an oral comprehensive exam or the equivalent (to be administered in the final semester).

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General Course Requirements

Liturgy	15 credits
Sacred Music	15 credits
Music Studies/Performance	16 credits
Interdisciplinary Colloquia Practicum	2 credits

(supervised pastoral placement for four semesters – transcribed only)

Master's Colloquium

The master's colloquium is designed both to familiarize M.S.M. students with the methods and content of the disciplines of music and theology and to engage students with faculty members in discussions about sacred music. Each year several colloquia will address issues common to both liturgy and the sacred arts. These colloquia will ground the interdisciplinary ethos of the programs, and draw the faculty and students into on-going dialogue. Attendance is mandatory for all M.S.M. students.

Practicum

M.S.M. students will benefit from supervised pastoral placement for four semesters in the following places: Basilica of the Sacred Heart, local churches, or residence halls.

The Doctoral Program

Doctoral studies at Notre Dame provide the opportunity for advanced study in theology through specialization in one of the following areas.

Areas of Concentration

Christianity and Judaism in antiquity covers four disciplines: the Hebrew Scriptures; Judaism, especially second temple and early rabbinic Judaism; the New Testament and Graeco-Roman world; and other Christian sources to the early medieval period. These are frequently studied in isolation from one another; in CJA they are studied together for their mutually illuminating interrelationships. At the same time, the integrity of each discipline is respected. Judaism is explored in its own right as well as in its relationship to Christianity. Christianity is explored by itself as well as in its dependence upon Judaism and its conscious emerging distinction from Judaism. Both are explored within the larger contexts of the ancient near East and the Greco-Roman world, which are also studied in their own right.

The history of Christianity area covers the rich and diverse history of Christian theology from the patristic period until the nineteenth century. Students specialize in two of the three historical periods that subdivide this area: early, medieval, Reformation and modern. Special strengths of the program in the history of Christianity include the interpretation of scripture prior to the modern period, spirituality, and doctrine and theological method from the early period through the Reformation..

Liturgical studies advances the study and understanding of the worship life of the Christian church in its various traditions. The program is inspired by the conviction that liturgy, in its several and diverse manifestations, is the key to the church's identity, ethos, and orientation toward God and the world. It integrates three subdisciplines: liturgical history, liturgical theology, and ritual studies.

Moral theology/Christian ethics is that branch of theological inquiry that studies in a systematic way the practical implications of God's revelatory intervention in Jesus Christ. It is concerned with the kind of people we ought to be and the kinds of actions we ought to perform or avoid. In pursuing its task, moral theology must draw upon every available source of understanding: scripture, tradition, relevant human sciences (such as psychology, sociology, economics), and human reason. The program encourages interaction with philosophical ethics. While moral theology at Notre Dame concentrates on the Roman Catholic tradition, it engages and is open to a variety of traditions.

As "faith seeking understanding," **systematic theology** engages in the disciplined and critical inquiry into the major tenets of Christian faith, especially as understood within Catholicism. The program is designed to provide a broad background in the Christian tradition, with particular emphasis on the Catholic theological heritage. Through course work, focused in-depth study in preparation for candidacy examinations, and dissertation research, students develop the hermeneutical and theological skills required for a critical and creative appropriation of the tradition.

World religions and world Church explores new ways of thinking about the study of world religions, cultural diversity in the Church, and the history of interactions between the Church and the religions of the world. It does so by considering the world's religions

with specific attention to their own particular historical contexts and modes of theological discourse, and by studying the ways in which Christianity has become inculturated in contexts shaped largely by non-Christian religious traditions.

Joint Program/Area of Concentration

In addition to the six major areas of concentration, the Department of Theology offers a **Ph.D. in Theology and Peace Studies** in partnership with Notre Dame's Kroc Institute for International Peace Studies. The degree includes a course of integrated studies so that graduates are fully credentialed in both theology and interdisciplinary peace research. The requirements for the Ph.D. in Theology and Peace Studies include the following: a minimum of 24 graded hours of credit in theology in one of the areas of concentration, and 18 graded hours in peace studies. Students will meet the theology department's minimal language requirements of two modern research languages (typically French and German) and one classical language (Latin or Greek).

Course of Studies

The doctoral program requires 42 credit hours of course work and takes a minimum of four years, more often five years, to complete. In the best interest of the student as well as the program, each student is evaluated at the end of each semester. If there is serious doubt about the student's ability to complete the Ph.D., he or she may be asked to leave the program.

1. Residency

Two years of course work in residency are required. A student who enters the program without sufficient background ordinarily will spend one or two further semesters in course work before taking candidacy examinations.

Those students who enter with a master's degree or its equivalent may seek immediate admission to residency.

Major Fields. Within the program areas, students concentrate their course work in a major field. These major fields are defined as follows:

- Christianity and Judaism in antiquity
Hebrew Bible and Judaica
New Testament and early church
- History of Christianity
Early Church

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Medieval studies

Reformation and modern studies

- Liturgical studies
- Moral theology/Christian ethics
- Systematic theology
- World religions and world Church

Course Requirements. Students are expected to take 14 courses during residency: eight of these must be in the major field of study; three must be outside the major fields; and three are electives.

Language Requirements. Students are required to pass examinations in three languages, Greek or Latin, French, and German. Students in systematic theology may substitute Spanish for French or German. The level of competence required is the ability to read standard theological sources pertinent to the area of study with the aid of a dictionary. Students in the history of Christianity program must know the ancient language at an advanced level. Students in liturgical studies are required to know two ancient and two modern languages, all at the basic level. Students in Christianity and Judaism in antiquity are required to pass examinations in five languages: one ancient at an advanced level, one ancient at an intermediate level, one ancient at a beginning level, and two modern languages. The language requirement should be fulfilled as soon as possible and must be fulfilled by the fall of the third year.

Advising. When a student enters the program, the faculty member who serves as the coordinator for the area of studies will function as a preliminary adviser. During the second semester in residency, each student, after appropriate consultation, selects an adviser in his or her area of research interest.

Evaluations. At the end of each semester the entire graduate faculty of the department evaluates the progress of students. These evaluations are designed to facilitate the progress of students through the program and to identify both strengths and weaknesses. Area coordinators write letters to the students reporting the conclusions of the evaluation. These provide more specific commendations and recommendations than course grades. If there is serious doubt about the student's ability to complete the Ph.D. degree, he or she may be placed on probation, and, if the deficiencies are not removed, asked to leave the program.

2. Independent Study

After the period of course work, students spend a period of time, normally nine months, of independent study organized around a series of topics. These topics are meant to expand the students' intellectual breadth and skills and involve matters of inquiry that extend beyond their course work. After consultation with the adviser, the student will propose a series of 10 topics, seven in the major field of study and three outside the major field. At least one of the topics in the major field will deal with the subject on which the student intends to write a dissertation. The program of independent study is approved by a committee and forms the basis for candidacy examinations.

3. Candidacy Examinations

Offered in October and March, the examinations are usually taken in the second semester after the two-year residency and completion of the language requirements.

The exams consist of three days of written examinations and a 90-minute oral examination. Successful completion of the written examinations is required for admission to the oral examination.

4. Dissertation Proposal

The dissertation proposal is to be submitted by the beginning of the semester following oral candidacy examinations.

5. Dissertation

The completed dissertation must be submitted within eight years of matriculation into the program. After approval by a committee composed of the dissertation adviser and three other readers, the dissertation is defended orally.

Teaching and Research Faculty

Gary Anderson, Professor

J. Matthew Ashley, Chair, Department of Theology and Associate Professor

Ann W. Astell, Professor

David Aune, the Walter Professor of Theology

Yury Avvakumov, Assistant Professor

Rev. Paul F. Bradshaw, Professor

John C. Cavadini, Associate Professor of Theology

David A. Clairmont, Assistant Professor

Lawrence S. Cunningham, the John A. O'Brien Professor of Theology

Rev. Brian Daley, S.J., the Catherine F. Huisking Professor of Theology

Mary Rose D'Angelo, Associate Professor

Rev. Michael S. Driscoll, Director of M.S.M. Program and Associate Professor

Celia Deane-Drummond, Professor

Rev. John S. Dunne, C.S.C., the John A. O'Brien Professor of Catholic Theology

Rev. Virgilio Elizondo, Notre Dame Professor of Pastoral and Hispanic Theology

David Fagerberg, Associate Professor

Margot Fassler, Keough-Hesburgh Professor of Music History and Liturgy; Co-Director of the MSM Program

Rev. Daniel G. Groody, C.S.C., Associate Professor

Rev. Gustavo Gutierrez, O.P., John Cardinal O'Hara Professor of Theology

M. Catherine Hilbert, O.P., Professor

Maxwell Johnson, Professor

M. Cathleen Kaveny, the John P. Murphy Foundation Professor of Law and Professor of Theology

Rev. Paul Kollman, C.S.C., Associate Professor

Robert A. Krieg, Professor

Blake Leyerle, Associate Professor and Concurrent Associate Professor of Classics

Bradley J. Malkovsky, Associate Professor

Timothy Matovina, Interim Chair of Theology and Professor

Rev. Richard P. McBrien, the Crowley-O'Brien Professor of Theology

Gerald McKenny, Associate Professor

John Meier, Professor

Leon J. Mertensotto, C.S.C., Associate Professor

Candida R. Moss, Assistant Professor

Francesca Murphy, Professor

Michael (Tzvi) Novick, Jordan Capson Chair in Jewish Studies and Assistant Professor

THEOLOGY

Rev. Paulinus I. Odozor, C.S.Sp., Associate Professor

Cyril O'Regan, the Catherine F. Huisking Professor of Theology

Rev. Hugh Rowland Page Jr., Dean of the First Year of Studies and Associate Professor

Margaret R. Pfeil, Assistant Professor

Jean Porter, the John A. O'Brien Professor of Moral Theology

Gabriel Said Reynolds, Director of M.T.S. Program and Associate Professor

Maura A. Ryan, Associate Dean of Arts and Letters and Associate Professor of Theology

Gregory E. Sterling, Dean of the Graduate School and Professor of Theology

Lawrence E. Sullivan, Professor and Interim Director of Graduate Studies

Eugene C. Ulrich, the Rev. John. A. O'Brien Professor of Old Testament Studies

James C. VanderKam, the John A. O'Brien Professor of Hebrew Scriptures

Joseph P. Wawrykow, Associate Professor

Todd D. Whitmore, Associate Professor

Abraham Winitzer, Professor

Robin Darling Young, Associate Professor

Randall C. Zachman, Professor

The Division of Science

Applied and Computational Mathematics and Statistics

Chair:

Steven Buechler

Director of Ph.D. Program:

Mark Alber

Director of the M.S. Professional Program:

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The Programs of Study

Doctoral Degree

The doctoral program in Applied and Computational Mathematics and Statistics (ACMS) is designed to train researchers skilled at conducting independent research in applied mathematics, computational mathematics, or statistics. The granting of a doctoral degree is recognition that the student's mastery of the discipline and research accomplishments meet the standards recognized by the community of professionals in the field.

The Ph.D. program requirements are structured to enable students to begin research and coursework in an application area early in their studies. The general features and specific requirements for the doctorate in ACMS are described below. These requirements include coursework, passing written and oral candidacy examinations timed to certify the student's ability to commence doctoral research, and satisfactory completion of a doctoral dissertation.

A doctoral student is required to complete 18 credits of ACMS courses at the graduate level in the first four semesters of study to remain in good standing. Students are encouraged to take courses in other departments to improve their abilities to work on interdisciplinary problems. Students are advised to take three courses in the first semester and at least two courses in the next three semesters. At the beginning of the first four semesters of study, the student must submit for approval by the Director of Graduate Studies (DGS) a list of the courses the student plans to take that semester. The student's adviser must sign this form.

All students must pass the S/U course ACMS 63100, *Effective Scientific Communication*. This class is normally taken in spring of the first year of studies and does not count towards the required 18 ACMS credits.

At the discretion of the DGS, at most six credits of graduate level courses transferred from another university may be counted toward the required ACMS course work, for a student without a completed master's degree. For a student with a completed master's degree, the DGS will determine the number of transferred credits applied to the required ACMS course work.

Examinations

Each student must demonstrate a working knowledge of two basic areas approved by the Director of Graduate Studies (DGS). Some possible areas are the material contained in: (1) ACMS 60690 Numerical Analysis I, (2) ACMS 60850 Applied Probability, (3) ACMS 60650 Basic Partial Differential Equations. The written examinations are normally taken at the end of the fall semester of the first year, and must be completed by the end of the

first year, except for students transferring from another program. The oral candidacy examination, taken after the written candidacy examinations are completed (and before the end of the second year), focuses on an "advanced" topic.

Annual Report

A student who has been admitted to candidacy is required to submit a written annual report of his or her progress in thesis research. This report, which is limited to two pages in length, must be endorsed by the advisor and submitted to the DGS by the end of the spring semester. The Department uses the annual report to monitor each student's progress towards graduation.

Residency Requirement

The Graduate School requires four consecutive semesters of full-time study.

Master of Science

A student who is working toward a Ph.D. in ACMS may qualify for a master of science degree along the way, if he or she has accumulated 30 credit hours, has passed the written candidacy examination, and has either passed the oral candidacy examination or (without passing) exhibited sufficient knowledge to obtain a positive recommendation from the examiners.

The department does not admit students directly to this degree.

Master of Science in Applied and Computational Mathematics and Statistics (Professional Degree)

The professional masters of science degree in Applied and Computational Mathematics and Statistics trains students in the mathematical, statistical and computational tools used in finance, computational biology or other technical fields. The intensive 12-month program combines coursework, projects in the student's

chosen area of employment, and practical business training. Most students will seek employment immediately upon completion of this degree. A student applies specifically for admission to this program.

Teaching and Research Faculty

Mark Alber, Director of Graduate Studies and Vincent J. Duncan Family Professor of Applied Mathematics

Steven Buechler, Department Chair and Professor

Bei Hu, Associate Dean for Undergraduate Studies and Professor

Jiahua Li, Assistant Professor

Fang Liu, Assistant Professor

Andrew Sommese, Vincent J. Duncan and Annamarie Micus Duncan Professor of Mathematics

Zhiliang Xu, Assistant Professor

Yongtao Zhang, Associate Professor

Biological Sciences

Chair:

Gary A. Lamberti

Director of Graduate Studies:

Sunny K. Boyd

Telephone: (574) 631-6552

Fax: (574) 631-7413

Location: 100 Galvin Life Sciences Center

E-mail: biosadm@nd.edu

Web: <http://biology.nd.edu/>

The Program of Studies

The master's degree is a 24-credit-hour program requiring the satisfactory completion of a minimum of 15 credit hours of course work, passing a research proposal review, and completing a suitable master's thesis. A student may include nine of the 24 credit hours in thesis research.

For the degree of doctor of philosophy, the student is expected to complete a 54-credit-hour requirement. This is composed of at least 24 credit hours of course work and the remainder as dissertation research. The student must pass a comprehensive examination consisting of both an

oral and a written examination, write and officially have approved a dissertation on research conducted under the direction of an adviser and committee, and pass a defense of the dissertation.

Students in the doctoral degree program must also fulfill a one-year teaching requirement that usually involves assisting in the instruction of undergraduate or graduate laboratory courses. This requirement may be automatically fulfilled if the student has a graduate assistantship for financial aid.

Teaching and Research Faculty

Elizabeth Archie, Claire Luce Booth Assistant Professor

Gary E. Belovsky, Professor

Harvey A. Bender, Professor

Nora J. Besansky, Professor

Sunny K. Boyd, Assistant Chair, Director of Graduate Studies and Professor

Patricia Champion, Assistant Professor

Frank H. Collins, the George and Winifred Clark Professor of Biological Sciences

Crislyn D'Souza-Schorey, the Walther Cancer Institute Chair and Professor

Giles E. Duffield, Assistant Professor

John G. Duman, the Martin J. Gillen Professor of Biological Sciences

Jeffrey L. Feder, Professor

Michael T. Ferdig, Associate Professor

Malcolm J. Fraser Jr., Rev. Julius A. Nieuwland, C.S.C. Professor of Biological Sciences II

Paul R. Grimstad, Assistant Chair and Associate Professor

Kasturi Haldar, Julius Nieuwland, C.S.C. Professor of Biological Sciences

Ronald A. Hellenthal, Assistant Chair and Professor

Jessica J. Hellmann, Associate Professor

Hope Hollocher, Associate Professor

David R. Hyde, Professor

Stuart Jones, Assistant Professor

Charles F. Kulpa Jr., Professor

Gary A. Lamberti, Chair and Professor

Shaun Lee, Assistant Professor

Lei Li, Associate Professor

David M. Lodge, Ludmilla F. and Stephen J. Galla Professor II

Mary Ann McDowell, Associate Professor

Jason S. McLachlan, Assistant Professor

Edwin Michael, Professor

Miguel Morales, Assistant Professor

Joseph E. O'Tousa, Professor

Michael Pfrender, Associate Professor

Matthew J. Ravosa, Professor

Benjamin Ridenhour, Assistant Professor

Jeanne Romero-Severson, Associate Professor

Zachary T. Schafer, Assistant Professor and Coleman Junior Chair in Cancer Biology

Jeffrey S. Schorey, Professor

Robert A. Schulz, Professor and Notre Dame Chair in Biological Sciences

David W. Severson, Professor

Zainulabeuddin Syed, Assistant Professor

Jennifer L. Tank, the Galla Professor of Biological Sciences

Gregory Timp, Keough-Hesburgh Chair in Electrical Engineering and Biological Sciences and Professor

Kevin T. Vaughan, Associate Professor

Rebecca Wingert, Assistant Professor

Chemistry and Biochemistry

Chair:

Kenneth W. Henderson

Director of Graduate Studies:

Brian Baker

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Web: <http://chemistry.nd.edu> or

<http://biochemistry.nd.edu>

The Program of Studies

The graduate programs in chemistry and biochemistry at Notre Dame are directed primarily towards the doctoral degree. Applications are taken from students seeking a Ph.D degree in either chemistry or biochemistry.

The Ph.D. programs are designed to prepare the student for a career in research or college-level teaching in chemistry, biochemistry, and related fields. Advanced courses in several areas of chemistry and biochemistry are available (see list below) along with regular seminar and special topics courses. A student normally selects his or her area of research and thesis adviser by the end of the first semester, and students and students usually begin active research during the spring semester of their first year. Admission to candidacy for the doctoral degree occurs after completion of written and oral examinations in the area of specialization.

The department considers teaching an integral part of the education of a graduate student. One year of teaching experience is required of all degree-seeking students, and teaching performance, therefore, is considered as part of the semiannual graduate student evaluations. A minimum of one year of teaching experience is required of all advanced degree-seeking students.

Both the chemistry and biochemistry Ph.D. degrees require a dissertation based upon experimental and/or theoretical research. The department participates in interdisciplinary programs involving the Departments of Biological Sciences, Phys-

ics, Chemical and Biomolecular Engineering, Computer Science and Engineering, and Aerospace and Mechanical Engineering, as well as the Indiana University School of Medicine — South Bend..

Teaching and Research Faculty

Brandon Ashfeld, Assistant Professor

Brian M. Baker, Associate Professor and Director of Graduate Studies

Paul Bohn, Arthur J. Schmitt Professor

Seth N. Brown, Associate Professor

Ian C. Carmichael, Professor and Director of Radiation Laboratory

Francis J. Castellino, Dean Emeritus of Science, the Kleiderer-Pezold Professor of Biochemistry, and Director of the Keck Center for Transgene Research

Patricia L. Clark, Rev. John Cardinal O'Hara Associate Professor

Steven Corcelli, Associate Professor

Xavier Creary, the Charles L. Huisling Sr. Professor of Chemistry

Norman Dovichi, Grace-Rupley Professor

Jennifer L. DuBois, Assistant Professor

Haifeng Gao, Assistant Professor

J. Daniel Gezelter, Associate Professor

Holly V. Goodson, Associate Professor

Gregory V. Hartland, Professor

Paul Helquist, Professor

Kenneth W. Henderson, Professor and Chair

Paul W. Huber, Professor

Amanda Hummon, the Walther Cancer Institute Assistant Professor of Biochemistry

Vlad M. Iluc, Assistant Professor

Prashant V. Kamat, Professor

S. Alex Kandel, Associate Professor

M. Kenneth Kuno, Associate Professor

A. Graham Lappin, Professor

Marya Lieberman, Associate Professor

Joseph P. Marino, Professor

Marvin J. Miller, the George and Winifred Clark Professor of Chemistry

Shahriar Mobashery, the Navari Family Professor in Life Sciences

Jeffrey W. Peng, Associate Professor

W. Robert Scheidt, the William K. Warren Professor of Chemistry and Biochemistry

Zachary Schultz, Assistant Professor

Anthony S. Serianni, Professor

Slavi C. Sevov, Professor

Bradley D. Smith, Professor

Sharon Stack, Professor

Franklin (Feng) Tao, Assistant Professor

Richard E. Taylor, Professor

Olaf G. Wiest, Professor

Master of Science in Global Health

Director of Global Health Training:

Joseph Bock

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Location: Galvin Life Science Center

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Web: <http://globalhealth.nd.edu/masters>

The Master of Science in Global Health (MSGH) program's mission is to provide, within the framework of a premier Catholic research university, a mixture of classroom and experiential learning where science is understood in the context of its promise to improve the health of those people who are disproportionately affected by preventable diseases. Our primary goal is to prepare students in this program for a lifelong appreciation of the crippling burdens societies suffer from disease, especially those in low- and middle-income countries. More importantly, beyond recognizing the burden of disease, students shall be prepared to make a positive contribution to alleviating this burden, through research, training or service. The uniqueness of the program is its focus on

science, health and the poor. Our academic objectives are to: 1) focus on building a strong scientific knowledge of the diseases that most adversely impact poor people around the world; and 2) provide students with hands-on research, training or service experience in resource-poor settings where basic health care needs are not met. The MSGH Program builds on the rich tradition of tropical infectious diseases research at ND and is consistent with the mission of the University — to cultivate an appreciation and disciplined sensibility to the poverty, injustice and oppression that burden the lives of so many, and thereby to create a sense of human solidarity and concern for the common good.

Degree Requirements

A minimum of 30 credits is required to graduate from the Master of Science in Global Health program:

MSGH core courses	13 credits
MSGH electives	9 credits
Field experience	8 credits

Following the initial course work, which is completed over two semesters, students complete one to two months of field experience in a resource-poor location where access to health care is limited. Finally, students will be required to submit and present a master's project, which will be a scholarly report based on original research or literature-based research.

Mathematics

Chair:

Matthew Gursky

Director of Graduate Studies:

Julia Knight

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Fax: (574) 631-6579

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E-mail: math@nd.edu

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The Program of Studies

The purpose of the doctoral program in mathematics is to assist students in developing into educated, creative, and

articulate mathematicians. The program consists of basic courses in the fundamentals of algebra, analysis, geometry and logic, numerical analysis and other areas of applied mathematics, and more advanced topics and seminars; and approximately two to three years of thesis work in close association with a member of the faculty. Limited enrollment and the presence of active groups of strong mathematicians provide excellent opportunities for research in algebra, complex analysis, partial differential equations, logic, algebraic geometry, differential geometry, topology, and applied mathematics. Most students complete the program within five years; some finish in four years.

First-year students have no teaching duties and usually devote themselves full time to courses. The written candidacy examinations are taken by the beginning of the second year. The oral candidacy examination is taken during the second year. A reading knowledge of one approved language, in addition to English, is required. Ideally, the language requirement is completed by the end of the third year. For more details about the requirements, see the Doctoral Regulations on the website.

Doctoral Degree Requirements

Students must have completed the following in order to receive their doctoral degree. For more information, see the department's *Regulations for Doctoral Students in Mathematics*.

1. At least 36 credit hours in basic and topics courses
2. Four consecutive semesters of full-time study
3. An examination to confirm the ability to read technical material in at least one other language in addition to English
4. Admission to degree candidacy
5. The successful defense and submission of a doctoral dissertation.

The Master of Science Degree

The graduate program in the Mathematics Department is almost entirely a Ph.D. program. Students are not normally admitted directly to a master's program. There is a master of science degree in applied mathematics for students who do not need funding and wish to pursue an interdisciplinary

project, or to carry out serious mathematical work while pursuing a Ph.D. in another department. (The requirements for the MSAM are available through the department.) A student who is working toward a Ph.D. in mathematics may qualify for a master of science degree along the way, if he or she has accumulated 30 credit hours, has passed the written candidacy examination, and has either passed the oral candidacy examination or (without passing) exhibited sufficient knowledge to obtain a positive recommendation from the examiners.

Teaching and Research Faculty

Katrina D. Barron, Assistant Professor

Nero Budur, H.J. Kenna Assistant Professor

Peter Cholak, Professor

Francis X. Connolly, Professor

Jeffrey Diller, Professor

William G. Dwyer, the William J. Hank Family Professor of Mathematics

Matthew J. Dyer, Associate Professor

Samuel Evens, Associate Professor

Leonid Faybusovich, Professor

David Galvin, Assistant Professor

Michael Gekhtman, Professor

Karsten Grove, the Rev. Howard J. Kenna, C.S.C Professor

Matthew Gursky, Chair and Professor

Alexander J. Hahn, Director of the Kaneb Center for Teaching and Learning and Professor

Brian Hall, Professor

Qing Han, Professor

A. Alexandrou Himonas, Professor

Richard Hind, Associate Professor

Julia F. Knight, Director of Graduate Studies and the Charles L. Huisking Professor of Mathematics

François Ledrappier, the John and Margaret McAndrew Professor of Mathematics

Arthur Lim, Associate Professor

Xiaobo Liu, Professor

Juan C. Migliore, Professor
 Gerard K. Misiolek, Associate Professor
 Liviu Nicolaescu, Professor
 Anne Pilkington, Associate Professor
 Claudia Polini, Rev. John Cardinal
 O'Hara, C.S.C. Professor of Mathematics
 Mei-Chi Shaw, Professor
 Brian Smyth, Professor
 Dennis M. Snow, Professor
 Nancy K. Stanton, Professor
 Sergei Starchenko, Professor
 Stephan A. Stolz, Professor
 Gábor Székelyhidi, Assistant Professor
 Laurence R. Taylor, Professor
 E. Bruce Williams, Professor
 Frederico J. Xavier, Professor

M.D./Ph.D. Joint Degree Program

Director:

Rudolph M. Navari, M.D., Ph.D.

Telephone: (574) 631-5574
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 South Bend, Indiana 46617
 E-mail: rnavari@nd.edu
 Web: <http://medicine.iu.edu/southbend>

The Program of Studies

The University of Notre Dame and the Indiana University School of Medicine – South Bend (IUSM – SB) offer a joint M.D./Ph.D. degree for exceptional students interested in academic medicine. This unusual partnership between a private Catholic university and a state-supported medical school was formed in 1995. The program draws on the strengths of the medical faculty and the research excellence of the graduate program faculty to train scientists who can bridge the gap between clinical medicine and basic life sciences.

General Requirements

To earn the joint degree, students will complete the first two years of medical school at IUSM – SB and continue at Notre Dame for three more years to pursue the University's doctoral degree through the Graduate School. The last two years of medical school then will be completed at the Indiana University School of Medicine's South Bend campus or any other School of Medicine campus throughout the state which offers the 3rd and 4th year.

Program descriptions and requirements for all of Notre Dame's doctoral programs, may be found elsewhere in this *Bulletin*. Students in the M.D./Ph.D. program may pursue the doctoral degree in any of these disciplines.

Admission

Admission to the program requires separate applications to the Notre Dame Graduate School and the Indiana University School of Medicine. The Graduate School will accept MCAT scores in place of the GRE scores required of all applicants. The parallel applications are coordinated and tracked by the IUSM – SB which serves as the central office for the combined degree program. Representatives from Notre Dame and the I.U. School of Medicine monitor and oversee the program.

Application to the joint degree program will not jeopardize a student's application to either the Graduate School or the School of Medicine. The student may be admitted to either school independently. Students admitted into the joint degree program will receive both tuition and stipend assistance.

Teaching and Research Faculty

Suzanne S. Bohlon, Assistant Professor
 Karen Cowden Dahl, Assistant Professor
 Richard Dahl, Assistant Professor
 Edward E. McKee, Associate Professor
 Rudolph M. Navari, Professor
 Molly Duman Scheel, Assistant Professor
 Robert V. Stahelin, Assistant Professor

Tracy Vargo-Gogola, Assistant Professor

Peter Velazquez, Assistant Professor

Molecular Biosciences Program

Director:

Paul W. Huber, *Professor of Chemistry and Biochemistry*

Telephone: (574) 631-6042
 Location: 437 Stepan Chemistry
 E-mail: phuber@nd.edu

Current research probing the molecular details of the biological sciences requires simultaneous application of genetic, biochemical, and molecular biological principles and expertise. The Molecular Biosciences Program (M.B.P.) provides a broad range of training opportunities for students seeking careers within this active research field. Faculty participants of the Department of Biological Sciences and the Department of Chemistry and Biochemistry administer the M.B.P. within the College of Science. Students interested in the M.B. program should apply for admission to the Department of Biological Sciences or Chemistry and Biochemistry depending on their research interests.

Degree Requirements

Students participating in the Molecular Biosciences Program must complete the degree requirements of either the Department of Biological Sciences or the Department of Chemistry and Biochemistry. Several courses are designed for all M.B.P. students, and are usually taken during the first year of graduate school. There are additional elective courses in each department to allow for specialization within the M.B.P. Students in the Biological Sciences are required to take Molecular Biology I and II, Fundamentals of Biochemistry, and five elective courses. These are minimum requirements. The student's research adviser and committee may require additional courses based on the background and research interests of the student. In the Department of Chemistry and Biochemistry there are specific requirements depending on the focus of the study. A student in Biochemistry is required to take Fundamentals of Biochemistry, Intermediary Metabolism, Molecular Biology

I, and Advanced Biochemical Techniques. In Organic Chemistry, a student is required to take Advanced Organic Chemistry I, Advanced Organic Chemistry II, and Synthetic Organic Chemistry, with an additional nine credit hours of courses.

All M.B.P. students must pass both oral and written comprehensive examinations. Students will conduct original research and write an approved dissertation on this work. The work is conducted under the direction of an adviser participating in the M.B.P. Students in the program also must complete a one-year teaching requirement that usually involves assisting in the instruction of laboratory courses within their discipline. All students participate in the seminar activities of the program.

Course List

Both required and elective courses of the Molecular Biosciences Program are categorized according to the department offering the course.

Biological Sciences

- Developmental Genetics
- Immunology
- Molecular Biology I and II
- Advanced Cell Biology I and II
- Immunobiology of Infectious Diseases
- Topics in Tumor Biology

Chemistry and Biochemistry

- Fundamentals of Biochemistry
- Intermediary Metabolism
- Molecular Biology I and II
- Enzyme Chemistry
- NMR Spectroscopy in Chemistry and Biochemistry
- Chemical Basis of Gene Expression
- Advanced Organic Chemistry I and II
- Synthetic Organic Chemistry

Physics

Chair:

Mitchell R. Wayne

Director of Graduate Studies:

Kathie E. Newman

Telephone: (574) 631-6386

Fax: (574) 631-5952

Location: 225 Nieuwland Science Hall

E-mail: physics@nd.edu

Web: <http://physics.nd.edu>

The Program of Studies

The graduate physics program at Notre Dame offers students a broad range of choice of research areas for a Ph.D. degree. Almost all areas of study in physics are represented within the department, including astrophysics, biophysics, atomic, condensed-matter, high-energy, network, nuclear, and statistical physics. This program combines course work and research, preparing the student for a career in research at a university, industry, or government lab or in teaching. Students take a sequence of basic courses in the fundamental areas of physics. In addition, the student will take advanced courses and seminars in specialized areas. Students join in a physics research program of the department within the first year.

The graduate program is primarily a doctoral program, leading to the degree of doctor of philosophy. The department ordinarily will not accept students who intend to complete only the master's degree. However, a program leading to the degree of master of science is available; it involves satisfactory completion of graduate course work without any thesis requirement.

The master of science nonresearch program requires 30 credit hours of approved course work and the passing of an oral master's examination. Each program of course work is chosen in consultation with a faculty adviser.

Interdisciplinary programs between physics and chemistry or biology are also available.

Requirements for the Ph.D. include 36 credit hours in courses and research. Courses taken include Mathematical Methods in Physics (PHYS 70003), Classical Mechanics (PHYS 70005), Methods of Experimental Physics (PHYS 71010), Quantum Mechanics I and

II (PHYS 70007 and 70008), Electromagnetism and Electrodynamics (PHYS 70006 and 80001), and Statistical Thermodynamics (PHYS 80002). One research area course is required, generally chosen from the set of Astrophysics (Astrophysics: Stars, Astrophysics: Galaxies, or Cosmological Physics), Atomic Physics, Biophysics, Condensed Matter (Solid State Physics or Soft Condensed Matter Physics), Elementary Particle, and Nuclear Physics (PHYS 80202, 80203, 80204, 80301, 80401, 80501, 80502, 80601, and 80701, respectively). There is additionally a physics breadth requirement, which can be satisfied by taking six 1-credit courses from the set Introduction to (Astrophysics, Atomic Physics, Biophysics, Condensed Matter Physics, Elementary Particle Physics, and Nuclear Physics) (PHYS 70200 to 70700) or by taking six credits of research-area courses from at least two areas different than the student's own. There is no foreign language requirement for a Ph.D. in physics. Students who have satisfactorily completed courses equivalent to the required courses listed above will have the corresponding requirements waived or transferred. Students lacking the background to begin the basic curriculum may be advised to take some advanced undergraduate courses. Additional courses, supplemented by colloquia and informal seminars on topics of current interest, are available to the advanced student.

In addition to course work, there are three examinations to be passed for a Ph.D., a written qualifying examination on undergraduate physics, a written and oral Ph.D. candidacy examination, and an oral Ph.D. dissertation defense. Students first take the qualifying exam in the fall of their first year, and must pass it by the end of the second year. The candidacy examination is typically taken in the third year, after course work is complete. In this exam, the candidate must present a research proposal, demonstrate the ability to perform the proposed research, and show a broad understanding of physics. The post-candidacy student then concentrates on research, and generally writes the doctoral dissertation within three years of the candidacy examination. A dissertation is required and must be approved by the student's doctoral committee and defended orally by the student at the final examination, the Ph.D. defense.

To remain in good standing, students are required to maintain a 3.0 grade point average, to pass the qualifying examination by the

PHYSICS

end of the second year, to pass the candidacy exam by the end of the fourth year, and to complete the Ph.D. degree program by the end of the eighth year. The minimum residence requirement for the Ph.D. degree is four consecutive semesters and may include summer session.

Teaching and Research Faculty

Mark Alber, Concurrent Professor

Ani Aprahamian, Frank M. Freimann Professor of Physics

Gerald B. Arnold, Professor

Dinshaw Balsara, Associate Professor

H. Gordon Berry, Professor

Ikaros I. Bigi, the Grace-Rupley II Professor of Physics

Howard A. Blackstead, Professor

Bruce A. Bunker, Professor

Mark A. Caprio, Assistant Professor

Philippe A. Collon, Associate Professor

Gregory P. Crawford, the W.K. Warren II Professor of Physics and Dean of the College of Science

Antonio Delgado, Assistant Professor

Malgorzata Dobrowolska-Furdyna, Rev. John Cardinal O'Hara, C.S.C. Professor of Physics

Morten R. Eskildsen, Associate Professor

Stefan G. Frauendorf, Professor

Jacek K. Furdyna, the Aurora and Tom Marquez Professor of Physics and Fellow of the Nanovic Institute for European Studies

Umesh Garg, Professor

Peter M. Garnavich, Professor

Michael D. Hildreth, Associate Professor

Jay Christopher Howk, Associate Professor

Anthony K. Hyder, Professor and Associate Chair and Director of Undergraduate Studies

Boldizsár Jankó, Professor and Director of the Institute for Theoretical Sciences

Colin P. Jessop, Professor

James J. Kolata, Professor

Christopher F. Kolda, Professor

Kevin A. Lannon, Assistant Professor

A. Eugene Livingston, Professor

John M. LoSecco, Professor

Grant J. Mathews, Professor and Director of the Center for Astrophysics

Kathie E. Newman, Professor, Associate Chair and Director of Graduate Studies

Jeffrey W. Peng, Concurrent Associate Professor

Sylvia Ptasińska, Assistant Professor

Terrence W. Rettig, Professor

Randal C. Ruchti, Professor

Steven T. Ruggiero, Professor

Jonathan R. Sapirstein, Professor

Xiao-Dong Tang, Assistant Professor

Carol E. Tanner, Professor

Zoltán Toroczkai, Professor and Director of the Interdisciplinary Center for Network Science and Applications

Mitchell R. Wayne, Chair and Professor

Michael C. F. Wiescher, the Frank M. Freimann Professor of Physics, Director of the Joint Institute for Nuclear Astrophysics, and Director of the Institute for Structure and Nuclear Astrophysics

The Division of Social Sciences

Economics

Chair:

Richard A. Jensen

Director of Graduate Studies:

Nelson C. Mark

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Location: 434 Flanner

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Doctoral Course of Study

The graduate program in economics at the University of Notre Dame is a Ph.D. program designed to prepare successful graduates for careers as professional economists at academic institutions, government agencies, non-government organizations, international agencies, and the private sector. Our faculty are involved in leading developments in research, teaching and governmental economic policies. We provide the next generation of scholars with the rigorous analytical and quantitative training necessary to continue this tradition.

The expected time to completion of the Ph.D. is five years.

Satisfactory Course Performance

Satisfactory performance requires a grade of B- or better in each and every graduate course with a cumulative GPA of at least 3.0 (corresponding to the grade B). Less than satisfactory course performance results in dismissal from the program at the discretion of the Graduate Studies Committee.

Credit Hours

Students need to complete a minimum of 45 credit hours of approved course work at the graduate level to obtain the Ph.D.

Students are encouraged at the outset to attend at least one of the research seminars offered by the department. Beginning in the second year, attendance and participation is required.

The First Year

During the first year of study, students acquire a thorough knowledge of microeconomic theory, macroeconomic theory, econometrics, and quantitative methods (mathematical and computational tools). Quantitative methods are not taught as a stand-alone course but are integrated into the micro, macro, and econometrics courses. The required courses are referred to as the "core" and are to be completed in the first year.

Students who are well-prepared in statistics may satisfy some of the core course requirements as determined by the Director of Graduate Studies in consultation with the Graduate Studies Committee.

Shortly after completing the core, students take comprehensive written exams in microeconomic and macroeconomic theory. These are competency evaluations that assesses the student's command of the essential concepts and methods necessary to read the literature and to perform research at the disciplinary frontier. Possible outcomes of the comprehensive exams are (a) Ph.D. pass, (b) M.A. pass, (c) fail. Students who do not attain a Ph.D. pass in either examination have one opportunity for a retake later that summer, typically in August. Failure to pass both exams at the Ph.D. level results in dismissal from the program.

Each core course counts for 4.5 credit hours. They are:

Fall Semester

ECON 60101: Microeconomic Theory I
ECON 60201: Macroeconomic Theory I
ECON 60301: Probability, Statistics, and Econometrics I

Spring Semester

ECON 60102: Microeconomic Theory II
ECON 60202: Macroeconomic Theory II
ECON 60302: Econometrics II

Summer

Sit for comprehensive exams

The Second Year

During the second year students acquire specialized knowledge by taking courses in at least two specialized fields of study to satisfy the field requirement. Each field is made up of a two-course sequence in a specialized area. Because of the small size of the program, however, only one course in any field is offered in a given academic year, so completion of the sequence will take two years. The student's competency in a field area is determined by receiving satisfactory grades in those courses.

The program allows some flexibility in forming specialty fields, subject to approval by the Director of Graduate Studies in consultation with the Graduate Studies Committee. Field offerings vary from year to year depending on faculty in residence and student interest but most are expected to be offered at least once every other year. The current set of fields includes:

- International Economics
- Monetary and Macroeconomics
- Industrial Organization
- Public Economics
- Environmental Economics
- Labor Economics

ECONOMICS

Students also spend the second year developing an original research topic under the supervision of faculty in the chosen field of study. Written field exams are replaced by a second-year research paper which the student must present for approval by the faculty early in the third year. The research paper must demonstrate an ability to conduct independent research and may become one of the chapters of the student's dissertation. From the fourth semester on (spring semester of the second year), the student will be required to participate in a research seminar in his or her chosen fields. Participation means presenting updates of the student's own research and critically analyzing that of others.

The curriculum for the second year is:

Fall Semester

- Field course
- Field course
- Research seminar

Spring Semester

- Field course
- Field course
- Research seminar

Summer

- Complete the second-year paper

The Third Year

In the third year, students take remaining field courses in subjects aligned to their interests, and continue to pursue either their independent or collaborative research. Student are also required to present and defend the second-year research paper to the Economics Faculty, and to devote increasing time and energy toward dissertation research.

Fall Semester

- Field course
- Research seminar

Spring Semester

- Field course
- Research seminar

The Fourth Year

In the fourth year, students devote increasing time and resources dissertation research and to participation in research seminars. Most students will also teach an introductory undergraduate course as part of their professional training. Students must pass the candidacy exam before

the end of the fourth year. By that time, the student should have completed two research papers that are ready for presentation at other universities, research institutions, or professional conferences.

The Fifth Year

During the fifth year, the student will complete dissertation research, defend the dissertation, initiate post-dissertation research, and enter the job market.

Seminar Requirements

Research seminars provide the student with insights into current research topics and offer a forum for students and faculty to present and discuss their recent research. In the first year, seminar and workshop attendance is optional, but strongly encouraged. From year 2 onwards, students are required to register and participate in a research seminar, and to present at least one research paper in a departmental workshop or seminar in years 3, 4, and 5.

The Dissertation Proposal

Beginning in year 3, students are expected to engage in significant, original research. Ideally, this research is a continuation and deepening of second-year research paper. Students are required to have a faculty adviser in their major field of study by the end of their third year. The role of the faculty adviser is to help the student make the transition from coursework to research and to help identify suitable dissertation topics. Often the faculty advisor also serves as the major adviser for the dissertation.

Candidacy Exam

Students must be admitted to candidacy by the end of the fourth year by passing the candidacy exam which consists of written and oral component. The written part precedes the oral part and is satisfied by either a dissertation proposal or a paper that will become a chapter of the dissertation. The oral part of the examination is administered directly after passage of the written part, and is conducted according to the rules of the Graduate School. Normally, the oral exam committee is made up of three members of the Economics Department and a Graduate School representative. The oral can be

taken no later than one calendar year prior to defense of the dissertation. The oral is comprehensive and is intended to test the student's readiness for advanced research in the more specialized area(s) of his or her field, as well as the feasibility of the specific research proposed for the dissertation. Successful passage indicates that, in the judgment of the faculty, the student has an adequate knowledge of the basic literature, problems, and research methods in the chosen field.

The Dissertation

The dissertation must be original research of sufficient quality to be published in well-respected peer-reviewed professional economics journals. It is typically supervised by one major adviser, and it must be orally defended before a committee of the advisers, three reading committee members of the faculty, and a Graduate School representative. Students should consult with several members of the department during the dissertation stage and are required to present one research paper from their dissertation in a workshop or seminar in year 5.

Additional Notes and Requirements

The Director of Graduate Studies serves as faculty adviser for all students until they have chosen an adviser in their major field of study. The matching of student to adviser should be undertaken during the second year.

There is no foreign language requirement for graduate students in economics.

In addition to the requirements of the Graduate School, students must meet various departmental requirements. These requirements are continually under review and are subject to revision.

The Master of Arts Degree

The Department of Economics and Econometrics does not administer a stand-alone M.A. program, but allows students to apply for an M.A. should they choose to terminate their study in the Ph.D. program. The M.A. degree is awarded to those who successfully complete the core courses, pass the comprehensive exams at the M.A. level or better, and meet University requirements for the M.A.

Teaching and Research Faculty

Simeon Alder, Assistant Professor

Kasey Buckles, Assistant Professor

Kirk B. Doran, Assistant Professor

William N. Evans, the Keough-Hesburgh
Professor of Economics

Robert Flood, Professor

Antoine Gervais, Assistant Professor

Thomas A. Gresik, Professor

Daniel M. Hungerman, Associate Profes-
sor

Terrence Johnson, Assistant Professor

Richard A. Jensen, Chair and Professor

Joseph Kaboski, Associate Professor

Steven Lugauer, Assistant Professor

William H. Leahy, Professor

Byung-Joo Lee, Associate Professor

Molly Lipscomb, Assistant Professor

Nelson C. Mark, the DeCrane Professor
of International Economics and Director
of Graduate Studies.

Michael J. Pries, Associate Professor

Kali P. Rath, Associate Professor

Eric Sims, Assistant Professor

James X. Sullivan, Associate Professor

Jeffrey Thurk, Assistant Professor

Christopher J. Waller, the Gilbert Schaefer
Chair of Economics

Abigail Wozniak, Assistant Professor

Education

Director of the M.A. Program:

Rev. Ronald J. Nuzzi

Director of the M.Ed. Program:

Thomas L. Doyle

Director of Graduate Studies:

Joyce Johnstone

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The Program of Studies: M.A.

The master of arts (M.A.) program in educational administration is housed in the Institute for Educational Initiatives, which provides research leadership in education and fosters efforts in education that are informed by social science research. This degree program prepares, educates, and supports selected Catholic school teachers to continue their service to K-12 schools through administrative formation in the Mary Ann Remick Leadership Program in the Alliance for Catholic Education (ACE). All program participants experience a graduate program culminating in a master's degree in educational administration and state licensure, as well as regular opportunities to interact with a national community of scholars in Catholic education.

The Mary Ann Remick Leadership Program is designed to prepare participants for service as school principals and to meet the professional standards for the principalship as defined by the Interstate School Leaders Licensure Consortium (ISSLC) and the Indiana Professional Standards Board (IPSB). The program is, therefore, standards-based, and all course activities and requirements are designed with this in mind. Between the second and third summers, participants are required to sit for and pass the School Leaders Licensure Assessment (SLLA).

A total of 42-credit hours of course work over a 26-month span are required, with an overall grade point of at least 3.0. Stu-

dents complete course work over three summers with 8 to 11 credits each summer and through two school years earning 6-7 credits per year. An interdisciplinary faculty composed of the Program Director, two additional full-time ACE Leadership faculty members, ACE faculty, and select national faculty serve the program. All faculty members possess earned terminal degrees (Ph.D., Ed.D., J.D., S.T.D.), or extensive experience and expertise demonstrated by national prominence.

The first summer includes 11 credits of study in the social and managerial sciences as well as education research, taught by Notre Dame faculty. After completion of the first summer, each Leadership member travels to the K-12 school at which he/she has been accepted as an administrative Intern and serves as a full-time teacher-administrator during the regular school year. During this academic year, all ACE participants come together for a programmatic mid-year meeting, partially dedicated to reflection on the challenges of administrative formation. In addition, all students will participate in distance learning courses directed at the areas of curricular instruction and professional supervision. At the conclusion of the first academic year, participants return to Notre Dame for the second summer of coursework, including educational law, research methods, exceptionalities, and media relations. After completion of the second summer, participants enroll in six-credit hours of distance learning coursework in action research at their sponsoring school. The third and final summer on campus includes coursework in facilities management, grant writing, foundations of education, and board management. Emphasis is placed on the completion of the program portfolio, which documents their growth in the program as a K-12 administrator. Throughout the two years, faculty and program directors provide on-line support and occasional site visits.

The Mary Ann Remick Leadership Program embraces a vision of community centered on the Gospels and manifested in the active promotion of leadership behaviors that support the common good in a variety of social contexts: home, school, nation, and Church. In addition to the credit-hour and GPA requirements, students learn spiritual strategies that empower them to establish, nurture, and

EDUCATION

maintain a lived experience of community life within the school and the greater community. Participants are encouraged to develop their own personal spirituality and faith in the context of community, and to share with one another in the journey of becoming committed Catholic school principals. Participants will partake faithfully and regularly in the liturgical life of the Church during the summer session at Notre Dame and during the academic year. Each participant formulates a faith development plan to provide a focus for the internship and to create a context in which to examine their own spiritual growth.

During the summer sessions, students live in community in Notre Dame residence halls, participating in presentations and programs aimed at stimulating their academic understanding of education, especially as it relates to community and spiritual development.

Course Sequence

1. First Summer (11 credits)
 - 70603. Educational Administration
 - 60040. Technology Integration in Modern Schools
 - 70604. Financial Management for Schools
 - 70605. Human Resource Management for Schools
 - 70627. Leadership in Schools I
 - Elective: 60830: Folk Choir
2. First Academic Year (7 credits)
 - 75610. Fall Administrative Internship — Curriculum and Instruction
 - 75612. Spring Administrative Internship — Supervision of Staff
 - 75627. Leadership in Schools II
3. Second Summer (11 credits)
 - 73609. Educational Law
 - 73659. Exceptionalities in Education
 - 73777. Educational Research and Methodology
 - 73627. Leadership in Schools III
 - 73633. Media Relations
 - Elective: 60830: Folk Choir
4. Second Academic Year (6 credits)
 - 73886. Action Research in Schools I
 - 73887. Action Research in Schools II
5. Third Summer (9 credits)
 - 73635. History and Philosophy of Education
 - 73607. Grant Writing and Development
 - 73608. Board Management
 - 73634. Facilities Management
 - 73633. Media Relations
 - 73888. Leadership in Schools IV
 - Elective: 60830: Folk Choir

The Program of Studies: M.Ed.

The master of education (M.Ed.) program is housed in the Institute for Educational Initiatives, which provides research leadership in education and fosters efforts in education that are informed by social science research. The only clients for this master's program are students enrolled in the Alliance for Catholic Education's Service Through Teaching Program.

Students in this program work toward licensure, consistent with the standards in the state of Indiana, in each of the following areas: middle childhood (elementary education), early adolescence (middle school), adolescence and young adulthood (high school), English language arts, social studies, science, mathematics, and foreign languages. Like most teacher accreditation programs at the master's level, content-area courses must be completed before entering the master's program, which provides education course work only.

A total of 37 (41 for elementary) credit hours of course work and teaching experience are required, with an overall grade point of at least 3.0. Half of the course work will occur in two summer sessions, with 10 to 12 credits earned in each. The faculty who teach in the M.Ed. program are drawn from a variety of disciplines and colleges within and, in some cases, from outside the University.

The first summer includes practice teaching in South Bend-area elementary and secondary schools as well as nine or 10 credit hours of course work. During each semester of the first school year, students take three credits of supervised teaching experience at an assigned Catholic school in the southern United States and during the second semester, students take two credits of a distance learning seminar. In

the second summer, students again take 10 or 11 credit hours of course work. During the second school year, students each semester once again participate in a three-credit supervised teaching experience in their assigned school and in a one-credit distance learning seminar that focuses on state content standards and assessment methods. Throughout the two years, supervision is accomplished by measuring students against professional performance indicators while students build a teaching portfolio documenting their progress in developing as a teacher.

In addition to the credit-hour and GPA requirements, students must complete two years of service in teaching with supervised teaching grades of not less than 3.0. The teaching portfolio is evaluated by both University faculty and master teachers, who provide recommendations for continued development.

During the summer sessions, students live in community in Notre Dame residence halls, participating in presentations and programs aimed at stimulating their academic understanding of education, especially as it relates to community and spiritual development.

Course Sequence

All ACE M.Ed. students are placed in one of three developmental level curricular tracks: elementary, middle school, or high school, depending on their ACE placement. Those in the middle school and high school tracks are then placed in a content area: mathematics, science, social studies, English/language arts, or foreign language. The particular methods and content courses will depend on the developmental level track.

Additional course numbers are available for the Introduction to Teaching and the Practicum classes.

1. First Summer (11/13 credits)
All tracks:
 - 60022. Introduction to Teaching (Elementary, Middle, High School)
 - 65032. Practicum (Elementary, Middle, High School)
 - 60040. Introduction to Computers in Education

60060. Teaching in Catholic Schools or 60070 Teaching Religion in Catholic Schools
63500. Integrative Seminar
- Elementary: 60182. Teaching of Reading
60132. Mathematics in Elementary Education I
60102 Effective Elementary Classroom Teaching.
- Middle school:
60204. Introduction to Middle School Teaching
60605, 60625, 60645, 60665, 60685. Seminar in Content Area I.
- High school:
60256. Introduction to High School Teaching
60605, 60625, 60645, 60665, 60685. Seminar in Content Area I.
- Elective:
60830 Folk Choir
2. First School Year: all tracks (8 credits)
65950. Supervised Teaching (two semesters)
65930. Clinical Seminar (one semester)
60410. Topics in Educational Psychology (second semester)
3. Second Summer (10/12 credits)
- Elementary:
60312. Exceptionality in Childhood
60452. Child Development and Moral Education
60142. Language Arts in Elementary Education
60162. Content Methods for Elementary Education
63500. Integrative Seminar
- Middle school:
60324. Exceptionality in Early Adolescence
60455. Development and Moral Education in Adolescence
60705, 60725, 60745, 60765, 60785. Seminar in Content Area II
63500. Integrative Seminar
- High school:
60336. Exceptionality in Adolescence
60455. Development and Moral Education in Adolescence
60705, 60725, 60745, 60765, 60785. Seminar in Content Area II
63500. Integrative Seminar
60840. Teaching Art across the Curriculum
60870. Religion Education (or 60880. Coaching and Youth)

4. Second School Year: all tracks (8 credits)

65950. Supervised Teaching (two semesters)

65930. Clinical Seminar (two semesters)

Peace Studies

Director of Doctoral Studies:

Asher Kaufman

Director of the Master's Program:

Susan St. Ville

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Web: <http://kroc.nd.edu>

The Program of Studies

Master's Degree Requirements

The interdisciplinary master's degree program in peace studies is a rigorous academic program offered through the Joan B. Kroc Institute for International Peace Studies. All students enroll in a series of core (required) and elective courses, select a professional track, engage in a five-month field experience, participate in the Master's Colloquium on Effective Peacebuilding, and produce a substantive master's project.

The three professional tracks available to students are:

- Conflict analysis and transformation
- Policy analysis and political change
- Organizational management and leadership

The director of academic programs assigns the student to a faculty member who serves as a research adviser and mentor as the student progresses through the program. The director of academic programs serves as co-adviser for all students, and other Kroc faculty and staff are available for guidance on specific issues.

The Field Experience

A key component of the Kroc M.A. program is the five-month field experience in which students integrate theories of peace-

building with work in non-governmental organizations and other institutions concerned with conflict resolution, peace studies, economic development, human rights or justice. This is an opportunity for students to acquire comparative experience outside their home country. Only students who are unable to leave the United States because of visa or travel restrictions beyond their control are allowed to complete their field experience in the United States. Students work towards their master's project, bringing data and a fresh perspective back to the Institute when they return to campus for the final semester.

The Thesis Option

A small number of students choose to write a master's thesis instead of pursuing an international internship. These students remain on campus during both academic years and research and write a peace studies thesis under the supervision of a thesis director in their second year.

Master's Colloquium and Project

All students enroll in the Master's Colloquium on Effective Peacebuilding after returning from the field in their final semester. This is an intensive course worth six credits. Conducted as a seminar, the colloquium provides the opportunity to reflect on the field experience in light of peace studies theory. Students work on their culminating master's projects as part of the colloquium.

Requirements for Graduation

- Forty-two (42) total credit hours, including:
 - Four core courses (12 credit hours)
 - A minimum of six elective classes from the peace studies curriculum, including two within the student's thematic area of study (18 credit hours)
 - A five-month field experience (6 credit hours)
 - Master's Colloquium: Effective Peacebuilding, including production of a master's project (6 credit hours)
- Demonstrated proficiency in English plus one other language
- A minimum grade point average of 3.0 on a 4.0 scale (a "B" average)

PEACE STUDIES

- Continuous enrollment in the Graduate School of the University of Notre Dame for the duration of the two-year program

Doctoral Degree Requirements

The Kroc Institute for International Peace Studies at the University of Notre Dame offers a Ph.D. in peace studies in partnership with Notre Dame's departments of history, political science, psychology, and sociology. This program grows out of an acute awareness of the need for more rigorous interdisciplinary study of peace and war and for deeper understanding of how peacebuilding can effectively address political, ethnic, and religious violence throughout the world. Graduates of the Kroc Institute peace studies program will be fully credentialed in one of the four associated disciplines, plus be fully acquainted with the research questions and findings of interdisciplinary peace research.

Ph.D. in History and Peace Studies

The requirements for the Ph.D. in History and Peace Studies include: a minimum of 27 hours of graded credit plus 3 hours of ungraded credit in history and 24 graded hours in peace studies; proficiency in English and 1 or 2 other languages (depending on the specialty within history); two history research seminar papers; a master's paper of publishable quality (not necessarily an official master's thesis); comprehensive exams in five areas; and a dissertation of original research. Some courses not listed above might be substituted in a particular student's program, depending on the student's professional goals and the availability of courses, subject always to the approval of the Directors of Graduate Studies in both the department and the Institute.

Two faculty members would serve on the dissertation committee from the department and two from the Institute. The principal adviser will normally be a Kroc fellow. In most cases there will be additional crossover as students will often choose to work with history professors who are also Kroc fellows.

Students will take five comprehensive exams, three in history and two in peace studies; alternately, one of the five exam fields may be a crossover field involving

both disciplines and directed by a history professor who is a Kroc fellow. Of the primary history fields, two must be in the student's major area (United States, modern Europe, Latin America, or medieval), and the third will be created by the student in consultation with and approval of the two directors of graduate studies. At least one of the two peace studies fields will be based on one of the peace studies foundational courses. An example would be a student concentrating in U.S. history taking fields in U.S. history 1865-present; African American history; modern Latin America; religion, violence, and peacebuilding; and comparative ethnic conflicts.

Ph.D. in Political Science and Peace Studies

In this program, basic requirements include a minimum of 69 hours of credit for the Ph.D. degree (57 of which are in substantive courses), proficiency in English and one other language, a master's paper of publishable quality (although this would not necessarily be an official master's thesis), a comprehensive examination in two areas plus a third area of course work, and a dissertation of original research. Students complete all existing regular political science requirements, take peace studies courses as the third area of specialization, plus three additional peace studies courses. Some courses not listed above might be substituted in a particular student's program, depending on the student's professional goals and the availability of courses, subject always to the approval of the Directors of Graduate Studies in both the department and the Institute. Two faculty members would serve on the dissertation committee from the department and two from the Institute. The dozen members of the Political Science Department who are fellows of the Kroc Institute provide numerous opportunities for stimulating research of mutual interest.

Ph.D. in Psychology and Peace Studies

In this program, basic requirements normally include: a minimum of 72 hours of credit in psychology and peace studies courses for the Ph.D. degree, proficiency in English and one other language, an empirical master's thesis, a comprehensive examination in developmental psychology (or other mutually agreed upon field in the department), and a dissertation of original research. Some courses not

listed above might be substituted in a particular student's program, depending on the student's professional goals and the availability of courses, subject always to the approval of the Directors of Graduate Studies in both the department and the Institute. Two faculty members would serve on the dissertation committee from the Department and two from the Institute.

Ph.D. in Sociology and Peace Studies

In this program, the basic requirements from the sociology core curriculum include: Classical Sociological Theory, Sociological Research Methods, Advanced Social Statistics, and Proseminar. There are also four sociology electives (one must be advanced methods, one must be advanced theory, and one must be global sociology). In addition, students take four peace studies gateway courses: Global Politics of Peacebuilding, Culture and Religion in Peacebuilding, Conflict Transformation and Strategic Peacebuilding, Political Economy of Globalization. Peace Research Seminar includes the Master's paper. In addition, students are required to take Peace Research: Methods and Findings, Ethnic Conflict and Peace Processes, and two Peace Studies electives. Twelve additional hours may be earned in independent study, dissertation credit, and other courses.

In meeting these requirements students will earn a minimum of 65 hours of credit for the Ph.D. degree, demonstrate proficiency in English and one other language, write a master's paper of publishable quality, pass comprehensive examinations in two specialty areas (one of which must be a substantive area in sociology—which does not include the methods and statistics area or the theory area), and write a dissertation of original research. Some courses not listed above might be substituted in a particular student's program, depending on the student's professional goals and the availability of courses, subject always to the approval of the Directors of Graduate Studies in both the department and the Institute. Two faculty members would serve on the dissertation committee from the department and two from the Institute. Any course that is cross-listed with sociology can be counted as a sociology course. Courses that are cross-listed as sociology and IIPS courses

can be counted toward sociology requirements or peace studies requirements, but none can be double counted toward two requirements. Students will indicate how they wish to use such courses by signing up under either the IIPS designation or the SOC designation.

The M.A. degree is normally earned on the way to the Ph.D. The M.A. in the combined degree would come from Classical Sociological Theory, Sociological Research Methods, Advanced Social Statistics, Proseminar, at least 3 of the peace studies gateway courses, plus Peace Research: Methods and Findings, Peace Research Seminar, and the master's paper. There will be a formal oral defense of the master's thesis before it is completed and deposited. The examining committee will include three faculty members, with at least one member coming from the department and one from the Institute.

The committees examining doctoral students in comprehensive examinations should have at least one departmental member and one Institute faculty. Any tenured or tenure-track faculty in the Department of Sociology may represent the department in the examining and defense committees. For these committees the Kroc Institute may draw faculty from its joint appointees from other departments or, where appropriate, from special professional faculty if they are part of the Kroc faculty and if a substantial and regular part of their job description is teaching and research.

Core Faculty

Scott Appleby, John M. Regan Jr. Director; Professor of History

Catherine Bolten, Assistant Professor of Anthropology and Peace Studies

David Cortright, Director of Policy Studies

Hal Culbertson, Executive Director

John Darby, Professor of Comparative Ethnic Studies

Christian Davenport, Professor of Peace Studies, Political Science, and Sociology

Larissa Fast, Assistant Professor of Conflict Resolution

Pamina Firchow, Associate Director of Doctoral Studies

Robert C. Johansen, Director of Doctoral Studies, Senior Fellow, and Professor of Political Science

Madhav Joshi, Research Assistant Professor, Associate Director of the Peace Accords Matrix

Asher Kaufman, Associate Professor of History and Peace Studies and Director of the Ph.D. Program

John Paul Lederach, Professor of International Peacebuilding

George A. Lopez, Rev. Theodore M. Hesburgh, C.S.C., Professor of Peace Studies

Julie Macfarlane, Adjunct Professor of the Practice

Bernie Mayer, Adjunct Professor of the Practice

Erik Melander, Senior Research Fellow

Mary Ellen O'Connell, Research Professor of International Dispute Resolution

A. Rashied Omar, Research Scholar of Islamic Studies and Peacebuilding

Atalia Omer, Assistant Professor of Religion, Conflict, and Peace Studies

Daniel Philpott, Associate Professor of Political Science

Gerard F. Powers, Director of Catholic Peacebuilding Studies

Emad Shahin, Henry Luce Associate Professor of Religion, Conflict and Peacebuilding

Jason A. Springs, Assistant Professor of Religion, Ethics and Peace Studies

Susan M. St. Ville, Director of the Master's Program

Ernesto Verdeja, Assistant Professor of Political Science and Peace Studies

Peter Wallenstein, Richard G. Starmann Sr. Research Professor of Peace Studies

Political Science

Chair:

Michael Desch

Director of Graduate Studies:

Christina Wolbrecht

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The Program of Studies

The primary aim of the graduate program in political science is to train qualified candidates for research and teaching. The department offers M.A. and Ph.D. degrees. It has five major subfields:

1. American politics;
2. comparative politics;
3. constitutionalism, law, and politics;
4. international relations;
5. political theory.

M.A. Program

M.A. students must complete a minimum of 30 hours in course credits and must pass a comprehensive written examination in their major field. A minimum of 12 hours of course work is required in the major field, and a minimum of nine in a second field. M.A.-only students are not eligible for funding, and we rarely offer admission to those seeking only the M.A.

Doctoral Program

Ph.D. students must complete the following requirements:

1. A total of 60 credit hours of courses, including at least 48 credit hours of substantive courses;
2. At least 12 hours of courses and comprehensive written exams in two of the department's five subfields (American politics; comparative politics; constitutionalism, law, and politics; international relations; and political theory);
3. At least nine hours of course credits in a student-defined area of specialization;

4. At least 15 hours of methods, including a proseminar on scope and methods, a math for political scientists course, and an introductory quantitative methods course;
5. A reading exam in one foreign language or two additional courses in quantitative methods (ESL students are exempted);
6. Submission of two papers to scholarly journals (a major grant application may substitute for one submission);
7. At least four semesters of service, usually as a teaching assistant;
8. An oral examination, based on the student's dissertation proposal;
9. A Ph.D. dissertation and its successful oral defense.

Students in the department are advised to consult the listing of courses in other departments, particularly in sociology, economics, history, philosophy, and theology. Courses in other departments selected in consultation with the student's adviser and the Director of Graduate Studies are counted toward a degree.

Teaching and Research Faculty

Ruth Abbey, John Cardinal O'Hara,
C.S.C. Associate Professor

Peri E. Arnold, Professor

Sotirios A. Barber, Professor

Jaimie Bleck, Assistant Professor

Eileen M. Hunt Botting, Associate Professor

David Campbell, John Cardinal O'Hara,
C.S.C. Associate Professor

Michael Coppedge, Professor

Christian Davenport, Professor

Darren Davis, Professor

Michael Desch, Professor and Chair

Rev. Robert Dowd, C.S.C., Assistant Professor

Andrew Gould, Associate Professor

John D. Griffin, Associate Professor

Alexandra Guisinger, Assistant Professor

Tin-bor Victoria Hui, Assistant Professor

Debra Javeline, Associate Professor

Robert Johansen, Professor

Mary M. Keys, Associate Professor

Geoffrey Layman, Associate Professor

Dan Lindley, Associate Professor

George A. Lopez, Theodore M. Hesburgh,
C.S.C. Chair in Peace Studies and Professor

Scott Mainwaring, Eugene Conley Professor of Political Science and Director of the Kellogg Institute for International Studies

A. James McAdams, William M. Scholl Professor of International Affairs

Rev. Sean McGraw, C.S.C., Assistant Professor

Peter R. Moody, Jr., Professor

Vincent Phillip Munoz, Associate Professor

Monika Nalepa, Assistant Professor

David Nickerson, Associate Professor

Dianne Pinderhughes, President's Distinguished Professor and Full Professor in the Department of Africana Studies

Daniel Philpott, Associate Professor

Emilia Powell, Assistant Professor

Benjamin Radcliff, Professor

Ricardo Ramirez, Associate Professor

John Roos, Professor

Sebastian Rosato, Assistant Professor

Rev. Timothy R. Scully, C.S.C., Professor

Emad Shahin, Associate Professor

Naunihal Singh, Assistant Professor

Dana Villa, Packey J. Dee Professor of Political Theory

Ernesto Verdeja, Assistant Professor

Christina Wolbrecht, Director of Graduate Studies and Associate Professor

Catherine H. Zuckert, Nancy Reeves Dreux Professor

Michael P. Zuckert, Nancy Reeves Dreux Professor

Psychology

Chair:

Daniel K. Lapsley

Director of Graduate Studies:

James Brockmole

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The Programs of Study

The doctoral graduate program is built on the assumption that knowledge of basic psychology and psychological methods is required for careers in both basic science and applied behavioral science. Solid training in general content areas, methodology and scientific writing prepares the student to make an active contribution to scholarly research in academia or to solve problems in various community, clinical, or other nonacademic settings. Our goal is that students become active generators of new knowledge and understand the application of knowledge already acquired.

The Psychology Department is divided into doctoral graduate program areas: Cognition, Brain, and Behavior; Clinical; Counseling; Developmental; and Quantitative.

Cognition, Brain, and Behavior

Faculty and students in the Cognition, Brain, and Behavior program study a broad range of human cognitive abilities and the factors that influence them. Specific topics of interest include attention, learning, memory, language, visual and spatial cognition, cognitive development and aging, emotion and affect, and applied cognition. Traditional behavioral measures of human performance are coupled with eye-tracking, computational modeling, virtual reality, measures of brain activity, pharmacological, and neuropsychological methods. These diverse interests and approaches result in natural collaborations with faculty in each of our psychology programs as well other departments

PSYCHOLOGY

Clinical (APA Accredited)

The Clinical Psychology Ph.D. program at Notre Dame provides excellent research and clinical training that prepares students for research and academic careers. In addition to specialty training in clinical psychology, students acquire expertise in statistics, research design, and methodology, and they gain a broad and general knowledge of the field of psychology. The program trains academically-oriented psychologists who appreciate how science and practice mutually inform one another to advance the discipline and to enhance human functioning.

Counseling (APA Accredited)

In the counseling program, science and practice mutually inform one another to advance the discipline and to enhance human functioning. Faculty research interests include cognitive vulnerability to depression, the impact of social stigma and discrimination, psychotherapy process and outcome, clinical research methodology, secrecy and self-disclosure, stress and depression, coping with chronic illness, cross-cultural and multicultural clinical competencies, marital discord and depression.

Developmental

During their time in the developmental program, students develop substantive knowledge bases necessary for careers in research and scholarship, in teaching, and in intervention. Concentrations in developmental psychology vary according to the specific interests of students and fit into three categories: cognitive development; socio-emotional development; and developmental psychopathology.

Quantitative

The quantitative program faculty provide courses in basic and advanced topics of applied statistics, and train students to advance the field of Quantitative Psychology through novel research on statistical methods and applications as well as the creative use of existing techniques. Areas of expertise within the program include frequentist and Bayesian statistics, longitudinal analysis, factor analysis and structural equation modeling, mixture modeling, item response theory, experimental design, computational statistics, and data mining. There is great flexibility of curriculum, and students may work

with a variety of faculty, both within and between programs.

Curriculum

The graduate program in psychology is primarily oriented toward the doctoral degree and consists of two stages. The first requires a minimum of 24 hours of course work and completing and defending a research-based master's thesis. Course work includes enrollment in PSY 60100 and 60101 during the first year, and other courses as specified by departmental and program requirements. Upon completion of first-stage requirements, a student is eligible to receive a master's degree by completing the additional requirements of the Graduate School, department, and their particular program.

The second stage of the program ordinarily involves additional course work, research activity, practicum (where appropriate), and preparation for the doctoral preliminary examinations, followed by work on the dissertation and internship (in the counseling and clinical programs). To fulfill the doctoral degree requirements, students must take an advanced research methods course or Psychological Measurement (PSY 60121), one additional statistics course, and at least four graduate-level seminars and complete a total of 55 or more credit hours. Preliminary examinations and the oral dissertation proposal defense are ordinarily completed during the third or fourth year. The awarding of the doctor of philosophy degree requires: (1) satisfactory performance on the departmental preliminary examinations; (2) completion of course requirements; and (3) submission of an approved dissertation to the Graduate School. Additional requirements by the Graduate School, the department and the program may apply.

Teaching and Research Faculty**Cognitive Area**

James R. Brockmole, Director of Graduate Studies and Associate Professor

Laura A. Carlson, Professor and Associate Dean for Professional Development in the Graduate School

Charles R. Crowell, Associate Professor and Director of the Cognitive Program and the Computer Applications Program

Kathleen M. Eberhard, Associate Professor

Bradley S. Gibson, Associate Professor

Jill Lany, Assistant Professor

Nicole M. McNeil, Assistant Professor

Gabriel A. Radvansky, Professor

Michelle M. Wirth, Assistant Professor

Clinical and Counseling Area

Thomas G. Burish, Provost and Professor

Lee Anna Clark, Professor and William J. & Dorothy K. O'Neill Professor in Psychology

Alexandra F. Corning, Assistant Professor

Joshua J. Diehl, Assistant Professor

Gerald J. Haefel, Assistant Professor

George S. Howard, Professor, and Fellow in the Joan B. Kroc Institute for International Peace Studies

Anita E. Kelly, Professor

Thomas V. Merluzzi, Professor

Scott M. Monroe, Professor and William K. Warren Foundation Chair in Psychology

Irene J. Kim Park, Assistant Professor

Jessica Payne, Assistant Professor

Donald Pope-Davis, Vice President and Associate Provost, Professor of Psychology, Fellow in the Center for Social Concerns, and Fellow in the Institute for Educational Initiatives

Anne D. Simmons, Professor

David A. Smith, Associate Professor. Director of the Counseling Program and the Marital Therapy and Research Clinic

Kristin Valentino, Assistant Professor

David Watson, Professor and Andrew J. McKenna Family Professor of Psychology

Developmental Area

Cindy S. Bergeman, Professor

John G. Borkowski, the McKenna Family Professor of Psychology and Fellow in the Institute for Educational Initiatives

Julia M. Braungart-Rieker, Professor

Mark Cummings, Professor and the Notre Dame Chair in Psychology, and Fellow in the Joan B. Kroc Institute for International Peace Studies

Jeanne D. Day, Professor

Joshua J. Diehl, Assistant Professor

Dawn M. Gondoli, Associate Professor and Director of the Developmental Program

Jill Lany, Assistant Professor

Daniel K. Lapsley, ACE-Collegiate Professor, Chair, and Fellow of the Institute for Educational Initiatives and of the Center for Social Concerns

Nicole M. McNeil, Assistant Professor

Darcia Narváez, Associate Professor and Fellow of the Institute for Educational Initiatives, Institute of Latino Studies, the John J. Reilly Center for Science, Technology and Values, and of the Joan B. Kroc Institute for International Peace Studies

Julianne C. Turner, Associate Professor and Concurrent Associate Professor in the Institute for Educational Initiatives

Kristin Valentino, Assistant Professor

Thomas L. Whitman, Professor

Quantitative Area

Ying (Alison) Cheng, Assistant Professor

Gitta H. Lubke, John Cardinal O'Hara CSC Associate Professor

Scott E. Maxwell, Matthew A. Fitzsimons Professor

Lijuan (Peggy) Wang, Assistant Professor

Ke-Hai Yuan, Professor and Director of the Quantitative Program

Guangjian Zhang, Assistant Professor

Sociology

Chair:

Rory McVeigh

Director of Graduate Studies:

William Carbonaro

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Location: 810 Flanner Hall

E-mail: soc@nd.edu

Web: <http://sociology.nd.edu/>

The Program of Studies

The Department of Sociology offers training leading to the conferral of two graduate degrees: the master of arts (M.A.) and the doctor of philosophy (Ph.D.). Although the M.A. degree is available to graduate students, admission is given to applicants whose goal is the doctorate.

The M.A. degree requires 30 hours of credit, of which six credit hours may be earned for the master's thesis. All students must complete and defend a research thesis for the master's degree.

The doctoral program normally occupies six years of full-time work for students with the bachelor's degree. Core requirements must be fulfilled in the first two years, according to scheduled sequencing. It is expected that the student will have completed all but the dissertation requirement by the conclusion of the fourth year of graduate study.

Several basic courses are required of all students who enter with only a bachelor's degree; in addition, they are required of other students who cannot demonstrate previous equivalent work at the graduate level. These courses include: one semester of Classical Sociological Theory (SOC 63911), for three credit hours; one semester of Contemporary Sociological Theory (SOC 63922), for three credit hours; one semester of Research Methods (SOC 63913), for three credit hours; one semester of an advanced methods course, for three credit hours; one semester of Statistics II (SOC 63993), for three credit hours (the student must have taken a more elementary statistics course as a prerequisite, or have received the permission of the instructor); one semester of Proseminar I: Professionalization (SOC 63091), for a total of two credit hours.; one semester of Proseminar II: Survey of Departmental Subfields, for one credit

hour; three semesters of foundational courses, for 9 credit hours; and 6 elective courses for a total of 18 credit hours.

To fulfill the training and research requirements, each candidate must select two specialty areas and pass a comprehensive examination in each.

Teaching and Research Faculty

Joan Aldous, William R. Kenan Professor of Sociology

Megan Andrew, Assistant Professor

Mark Berends, Professor and Director of the Center for Research on Educational Opportunity

Kraig Beyerlein, Assistant Professor

Jorge A. Bustamante, Eugene Conley Professor of Sociology

William J. Carbonaro, Director of Graduate Studies and Associate Professor

Gilberto Cardenas, Professor, Assistant Provost and Director of the Institute for Latino Studies

Kevin J. Christiano, Associate Professor

Jessica Collett, Assistant Professor

Larissa Fast, Assistant Professor

Robert Fishman, Professor

David S. Hachen, Jr., Associate Professor

Maureen Hallinan, the William P. and Hazel B. White Professor of Sociology

Eugene Halton, Professor

Sean Kelly, Assistant Professor

Mary Ellen Konieczny, Assistant Professor

Amy Langenkamp, Assistant Professor

Omar Lizardo, Assistant Professor

Elizabeth McClintock, Assistant Professor

Erin McDonnell, Assistant Professor

Terence McDonnell, Assistant Professor

Rory M. McVeigh, Chair and Professor

Daniel J. Myers, Professor and Associate Provost for Faculty Affairs

David Sikkink, Associate Professor

SOCIOLOGY

Christian Smith, Professor and Director,
Center for the Study of Religion and Society
Lynette Spillman, Associate Professor
Jason Springs, Assistant Professor
Erika M. Summers-Effler, Associate Professor
J. Samuel Valenzuela, Professor
Andrew J. Weigert, Professor
Michael R. Welch, Professor
Richard Williams, Associate Professor

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