PhD Programs

Overview

Northeastern University offers the following PhD programs. The Experiential PhD (https://catalog.northeastern.edu/graduate/phdprograms/experiential-phd/) page has additional information on doctoral programs that connect Northeastern to industry, government, and nonprofit partners.

B

- Bioengineering, PhD (https://catalog.northeastern.edu/graduate/engineering/bioengineering/bioengineering-bachelors-degree-entrance-phd/)
- Biology, PhD (https://catalog.northeastern.edu/graduate/science/biology/biology-phd/)
- Biomedical Science, PhD (https://catalog.northeastern.edu/graduate/health-sciences/pharmacy/biomedical-sciences-phd/)

C

- Chemical Engineering, PhD (https://catalog.northeastern.edu/graduate/engineering/chemical/chemical-engineering-phd/)
- Chemistry, PhD (https://catalog.northeastern.edu/graduate/science/chemistry-chemical-biology/chemistry-phd/)
- Civil and Environmental Engineering, PhD (https://catalog.northeastern.edu/graduate/engineering/civil-environmental/civil-environmental-engineering-phd/)
- Computer Engineering, PhD (https://catalog.northeastern.edu/graduate/engineering/electrical-computer/computer-engineering-phd/)
- Computer Science, PhD (https://catalog.northeastern.edu/graduate/computer-information-science/computer-science/computer-science-phd/)
- Counseling Psychology, PhD (https://catalog.northeastern.edu/graduate/health-sciences/community-health-behavioral-sciences/counseling-psychology-phd/)
- Criminology and Justice Policy, PhD (https://catalog.northeastern.edu/graduate/social-sciences-humanities/criminology-criminal-justice/criminology-justice-policy-phd/)
- Cybersecurity, PhD (https://catalog.northeastern.edu/graduate/computer-information-science/cybersecurity/cybersecurity-bachelors-degree-entrance-phd/)

E

- Economics, PhD (https://catalog.northeastern.edu/graduate/social-sciences-humanities/economics/economics-phd/)
- Electrical Engineering, PhD (https://catalog.northeastern.edu/graduate/engineering/electrical-computer/electrical-engineering-phd/)
- English, PhD (https://catalog.northeastern.edu/graduate/social-sciences-humanities/english/english-phd/)

H

- History, PhD (https://catalog.northeastern.edu/graduate/social-sciences-humanities/history/history-phd/)
- Human Behavior and Sustainability Sciences, PhD (https://catalog.northeastern.edu/graduate/science/marine-environmental-sciences/human-behavior-sustainability-sciences-phd/)
- Human Movement and Rehabilitation Sciences, PhD (https://catalog.northeastern.edu/graduate/health-sciences/clinical-rehabilitation-sciences/human-movement-rehabilitation-sciences-phd/)

I

- Industrial Engineering, PhD (https://catalog.northeastern.edu/graduate/engineering/mechanical-industrial/industrial-engineering-phd/)
- Interdisciplinary, PhD (p. 2)
- Interdisciplinary Design and Media, PhD (https://catalog.northeastern.edu/graduate/arts-media-design/interdisciplinary-programs/interdisciplinary-design-media-phd/)
- Interdisciplinary Engineering, PhD (https://catalog.northeastern.edu/graduate/engineering/interdisciplinary-phd/interdisciplinary-engineering-phd/)

M

- Marine and Environmental Sciences, PhD (https://catalog.northeastern.edu/graduate/science/marine-environmental-sciences/marine-environmental-sciences-phd/)
- Mathematics, PhD (https://catalog.northeastern.edu/graduate/science/mathematics/mathematics-phd/)
- Mechanical Engineering, PhD (https://catalog.northeastern.edu/graduate/engineering/mechanical-industrial/mechanical-engineering-phd/)
- Medicinal Chemistry and Drug Discovery, PhD (https://catalog.northeastern.edu/graduate/health-sciences/pharmacy/medicinal-chemistry-drug-discovery-phd/)

N

- Network Science, PhD (https://catalog.northeastern.edu/graduate/social-sciences-humanities/interdisciplinary/network-science-phd/)
- Nursing, PhD (https://catalog.northeastern.edu/graduate/health-sciences/nursing/nursing-phd/)

P

- Personal Health Informatics, PhD (https://catalog.northeastern.edu/graduate/computer-information-science/health-informatics/personal-health-informatics-phd/)
- Pharmaceutics and Drug Delivery, PhD (https://catalog.northeastern.edu/graduate/health-sciences/pharmacy/pharmaceutics-drug-delivery-phd/)
- Pharmacology, PhD (https://catalog.northeastern.edu/graduate/health-sciences/pharmacy/pharmacology-phd/#text)
- Physics, PhD (https://catalog.northeastern.edu/graduate/science/physics/physics-phd/)
- Political Science, PhD (https://catalog.northeastern.edu/graduate/social-sciences-humanities/political-science/political-science-phd/)
- Population Health, PhD (https://catalog.northeastern.edu/graduate/health-sciences/community-health-behavioral-sciences/population-health-phd/)
- Psychology, PhD (https://catalog.northeastern.edu/graduate/science/psychology/psychology-phd/)
- Public Policy, PhD (https://catalog.northeastern.edu/graduate/social-sciences-humanities/public-policy-urban-affairs/public-policy-phd/)

S

- School Psychology, PhD (https://catalog.northeastern.edu/graduate/health-sciences/community-health-behavioral-sciences/school-psychology-phd/)
- Sociology, PhD (https://catalog.northeastern.edu/graduate/social-sciences-humanities/sociology/sociology-phd/)

PhD Network

The Northeastern University PhD Network is designed to build distinctive Experiential PhD (https://catalog.northeastern.edu/graduate/phdprograms/experiential-phd/) opportunities and community among PhD students, providing students with support and resources universitywide to enhance their educational experience and career exploration.

At Northeastern, every PhD student has opportunities to acquire experience beyond traditional dissertation research. Exposure to and integration with our many industry and academic partners—through internships, fieldwork, and other collaborations—and in authentic settings—from laboratories, startup companies, and nonprofit institutions—lead to research with greater impact and broader career opportunities, both within and beyond academia. The PhD Network works with internal and external partners to grow and facilitate opportunities for PhD students.

Shared values unite PhD-centered activities at Northeastern:

- **Excellence with purpose:** All PhD programs combine academic rigor with societal impact, preparing critical thinkers to tackle the world's most challenging problems.
- **Innovative thinking:** Our education programs, mentoring activities, and research scholarship develop novel content and pathfinding approaches.
- **Crossing boundaries:** PhD students transcend disciplinary and international boundaries during their innovative educational journey.
- **Integrative education:** The integration of scholarship and research training with collaborative fieldwork and professional development provides a uniquely experiential education.
- **Inclusive diversity:** Students and faculty from diverse cultures and backgrounds drive excellence by bringing a wide range of perspectives to our distinctive programs.

Explore the PhD Network website (https://phd.northeastern.edu/network/resources/) to learn more about:

- Resources that support PhD students' educational, professional, and personal lives
- Events created especially for PhD students, both at Northeastern and through our partners
- Funding in support of fellowships, internships, and conference attendance

Interdisciplinary PhD - Overview

Offering an individually tailored program of study, the Northeastern University Interdisciplinary Doctor of Philosophy program enables students to draw from the disciplines supporting their fields of research and provides flexibility to train the next generation of transdisciplinary and multidisciplinary researchers who will be needed to tackle society's most pressing problems that cross disciplinary boundaries.

The graduate group, consisting of faculty from across Northeastern, provides the overarching faculty oversight to the curriculum that is expected to cross multiple Northeastern colleges. The Interdisciplinary PhD option will only be available when the desired research curriculum cannot be supported by one of Northeastern's existing PhD programs. This PhD program is administered by the Office of the Provost.

Minimum academic standards, oversight, requirements, and milestones related to this new PhD are described below.

GRADUATE GROUP

This refers to the faculty committee that will provide academic oversight for the PhD program as a whole.

DISSERTATION COMMITTEE

Established by the graduate group for each PhD student, the dissertation committee consists of at least three faculty qualified to supervise the student's research and establishes the curriculum requirements in support of the PhD student's anticipated dissertation research. There should be at least one dissertation committee member representing each discipline associated with the proposed PhD, and it is strongly encouraged that an external individual is added as a fourth member of the dissertation committee. This external member must be qualified to supervise and guide

PhD-level research. The dissertation committee also establishes the milestone requirements, specifically the format for the qualifying exam at the time of admission. One member of the dissertation committee will serve as the committee chair. Cochairs are permitted and encouraged to guide research at the intersection of disciplines.

AREA OF SPECIALIZATION

Students select an area of specialization, supported by their approved coursework and research areas and denoted on the student's transcript. The area of specialization will be recommended by the dissertation committee. The graduate group will review these areas of specialization within the context of existing PhD specializations. The graduate group will make the final decision about the area of specialization for each student. Area of specialization should be established by the end of the first year of academic study.

ADMISSION TO CANDIDACY

The admission to candidacy recognizes the wide range of disciplines that may participate in in this degree. To reach candidacy, PhD students must demonstrate their research ability through the application and synthesis of skills and knowledge and their ability to pose questions and solve problems. Students should achieve candidacy by the end of the second year of study. The admission to candidacy will include an assessment about the candidate's ability to perform societally impactful research by an external evaluator. Students who require more than 18 months to meet the requirements for candidacy will need to petition the dissertation committee and the graduate group to request extended time. Candidacy will be achieved with the following:

- The qualifying examination subject areas will be established at the time of admission, which will be aligned with the student's proposed research project. A representative from the graduate group will convene the dissertation committee for the qualifying exams. To assess the student's ability to perform impactful research, it is strongly recommended that an evaluator outside Northeastern (and not a member of the dissertation committee) be included as an examiner. The qualifying examination will normally include a written exam, oral exam, response to a journal paper, and/or other format deemed acceptable by the dissertation committee for the involved disciplinary areas.
- Progression to candidacy may also require a research paper requirement. Any paper requirements will be communicated at admission.
- The committee may require a presentation from the student before making its recommendation.

DISSERTATION PROSPECTUS/PROPOSAL

After the student has achieved sufficient depth in a field of study, the student prepares a proposal for a PhD dissertation. This process should take place within a year of achieving candidacy. The dissertation proposal describes the proposed research, including the relevant background materials from literature. The proposal should clearly specify the research questions to be addressed, the methods to be used, and a schedule of milestones to completion. A representative from the graduate group will convene the dissertation committee for the dissertation proposal. The dissertation proposal must be approved by the dissertation committee. It is strongly encouraged that the dissertation committee include an individual qualified to guide the research from outside Northeastern. Upon approval of the written proposal, the student must present the proposed work orally in a public forum, followed by a closed-door oral examination from the dissertation committee. The dissertation committee will submit the dissertation proposal results to the representative from the graduate group who will review and communicate the results to the student. The student may take the dissertation proposal examination twice, at most.

DISSERTATION DEFENSE

The dissertation defense is held in accordance with the bylaws of the University Graduate Curriculum Committee of the Northeastern Faculty Senate. The defense is convened by a representative from the graduate group and is chaired by a Northeastern faculty member approved by the graduate group and outside the dissertation committee. The dissertation committee will include an external examiner who is an individual with expertise in the area of study but not affiliated with the Northeastern global campus system or previously involved with the student's research. The defense chair will communicate the results to the PhD candidate.

Interdisciplinary PhD - Bachelor's Degree Entry

Program Requirements for Bachelor's Degree Entry

Milestones

Core requirements *(curricula established by the dissertation committee)*
Annual progress review
Admission to candidacy
Qualifying examination
Dissertation prospectus/proposal
Dissertation defense

Core Requirements

Code	Title	Hours
Complete 30 semester hours of coursework in consultation with your dissertation committee.		30

The dissertation committee will provide oversight in coursework selection, provided that each student has training (via courses or experience) in prerequisite domain knowledge, research methods, and specific contexts. Students are required to enroll in a minimum of 30 semester hours of coursework approved by the dissertation committee. This coursework may include traditional courses, special topics courses, independent study, and discussant or other coursework taken via partner institution. The coursework should also include opportunities to develop the professional skills (such as communication, teaching, and leadership) required for the student's field of research. Courses delivered at a partner outside Northeastern University may satisfy these course requirements provided an education or experiential PhD agreement exists with that organization. The dissertation committee

will ensure that the 30 semester hours represent a balance of coursework across domain knowledge, research methods, application contexts, research integrity, colloquia, the research itself, and professional development. The dissertation committee should submit a plan of study to the graduate group during the first semester of a PhD student's enrollment.

Program Credit / GPA Requirements

30 total semester hours required
Minimum 3.000 GPA required

Interdisciplinary PhD - Master's Degree Entry

Program Requirements for Master's Degree Entry

Milestones

Core requirements *(curricula established by the dissertation committee)*
Annual progress review
Admission to candidacy
Qualifying examination
Dissertation prospectus/proposal
Dissertation defense

Core Requirements

Code	Title	Hours
Complete 12 semester hours of coursework in consultation with your dissertation committee.		12

The dissertation committee will provide oversight in coursework selection, provided that each student has training (via courses or experience) in prerequisite domain knowledge, research methods, and specific contexts. Students are required to enroll in a minimum of 12 semester hours of coursework approved by the dissertation committee. This coursework may include traditional courses, special topics courses, independent study, and discussant or other coursework taken via partner institution. The coursework should also include opportunities to develop the professional skills (such as communication, teaching, and leadership) required for the student's field of research. Courses delivered at a partner outside Northeastern University may satisfy these course requirements provided an education or experiential PhD agreement exists with that organization. The dissertation committee will ensure that the 12 semester hours represent a balance of coursework across domain knowledge, research methods, application contexts, research integrity, colloquia, the research itself, and professional development. The dissertation committee should submit a plan of study to the graduate group during the first semester of a PhD student's enrollment.

Program Credit / GPA Requirements

12 total semester hours required
Minimum 3.000 GPA required