A research-based, interdisciplinary Doctor of Philosophy (PhD) in Cybersecurity combines a strong security technical foundation with a security policy and social sciences perspective. It seeks to prepare graduates to advance the state of the art in security in systems, networks and the internet in industry, academia, and government. The interdisciplinary nature of the program distinguishes it from traditional doctoral degree programs in computer science, engineering, or social sciences and makes it unique in the Boston area.

Students who choose the PhD in Cybersecurity program have a strong desire to pursue academic research solving critical cybersecurity challenges facing today's society. The PhD program is a natural path for students in the college's Master of Science in Information Assurance and Cybersecurity program who want to pursue research and students with bachelor’s degrees and an interest in research-focused careers. Students who pursue careers in advancing the state of the art of cybersecurity have an opportunity to gain:

- A strong technical foundation in cybersecurity and an interdisciplinary perspective based on policy and social science
- A path to a research-focused career coupled with depth in information assurance research at a leading institution, one of the earliest designees by NSA/DHS as a National Center of Academic Excellence in Information Assurance Research, Information Assurance/Cyber Defense, and Cyber Operations
- The opportunity to work with and learn from faculty who are recognized internationally for their expertise and contributions in information assurance from Northeastern's Khoury College of Computer Sciences, the Department of Electrical and Computer Engineering, and the College of Social Sciences and Humanities
- Access to research projects at Northeastern's research centers focused on security:
  - The Institute of Information Assurance (IIA), an interdisciplinary research center overseen by both the Khoury College of Computer Sciences and the department of Electrical and Computer Engineering in the College of Engineering and the recipient of a National Science Foundation grant to train the country's next generation of cybercorps
  - The International Secure Systems Lab, affiliated with Northeastern, a collaborative effort of European and U.S. researchers focused on web security, malware and vulnerability analysis, intrusion detection, and other computer security issues
  - The ALERT Center, where Northeastern is the lead institution, a multiuniversity Department of Homeland Security Center of Excellence involved in research, education, and technology related to threats from explosives

The benefits of the Boston area:

- World renowned for academic and research excellence, the Boston area is also home to some of the nation’s largest Department of Defense contractors and government and independent labs such as MIT Lincoln Lab, MITRE, and Draper Lab

### Degree Requirements

The PhD in Cybersecurity master entry degree requires completion of at least 16 semester credit hours beyond a bachelor's degree. Students also must complete the required core courses.

### Doctoral Degree Candidacy

Refer to the Cybersecurity, PhD, overview for admission to candidacy requirements.

### RESIDENCY

Refer to the Cybersecurity, PhD, overview for residency requirements.

### DISSERTATION ADVISING

Refer to the Cybersecurity, PhD, overview for dissertation advising requirements.

### DISSERTATION COMMITTEE

Refer to the Cybersecurity, PhD, overview for dissertation committee requirements.

### COMPREHENSIVE EXAMINATION

Refer to the Cybersecurity, PhD, overview for comprehensive examination requirements.

### DISSERTATION DEFENSE

Refer to the Cybersecurity, PhD, overview for dissertation defense and completion requirements.

### Program Requirements

Complete all courses and requirements listed below unless otherwise indicated.

### Milestones

Qualifying exam and area exam
Annual review
Dissertation proposal
Dissertation committee
Dissertation defense

### Core Requirement

Complete 16 semester hours of approved course work. A cumulative 3.400 GPA is required for the core requirement. Consult your faculty advisor for acceptable courses.

### Dissertation

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>CY 9990</td>
<td>Dissertation</td>
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<tr>
<td></td>
<td>Complete the following (repeatable) course twice:</td>
<td></td>
</tr>
<tr>
<td>CY 9996</td>
<td>Dissertation Continuation</td>
<td></td>
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### Program Credit/GPA Requirements

16 total semester hours required
Minimum 3.000 GPA required