CYBERSECURITY

- Master of Science in Cybersecurity
  *Tracks: Analysis, Networks, or Systems*
- Post-Master’s Certificate in Cybersecurity

COURSES

FOUNDATION COURSES
The 400-level foundation courses must be taken before other graduate courses, while the 700-level foundation course may be completed anytime after that during the course of the Cybersecurity degree.

- 605.421 Foundations of Algorithms
- 695.401 Foundations of Information Assurance
- 695.701 Cryptology

One or more foundation courses can be waived by the student’s advisor if a student has received an A or B in equivalent courses. In this case, the student may replace the waived foundation courses with the same number of other graduate courses and may take these courses after all remaining foundation course requirements have been satisfied.

COURSES BY TRACK
The tracks offered represent related groups of courses that are relevant for students with interests in the selected areas. Students are required to choose a track or concentration to follow and to take at least three courses from the selected track. The tracks are presented as an aid to students in planning their course schedules and are only applicable to students seeking a master’s degree. They do not appear as official designations on a student’s transcript or diploma.

ANALYSIS
- 695.442 Intrusion Detection
- 695.443 Introduction to Ethical Hacking
- 695.701 Cryptology
- 695.741 Information Assurance Analysis
- 695.742 Digital Forensics Technologies and Techniques
- 695.744 Reverse Engineering and Vulnerability Analysis
- 625.468 Statistical Privacy Protection in Large Datasets
- 650.457 Computer Forensics

NETWORKS
- 695.421 Public Key Infrastructure and Managing E-Security
- 695.422 Web Security
- 695.721 Network Security
- 695.791 Information Assurance Architectures and Technologies
- 605.471 Principles of Data Communications Networks
- 605.472 Computer Network Architectures and Protocols
- 605.474 Network Programming
- 605.475 Protocol Design and Simulation
- 605.771 Wired and Wireless Local and Metropolitan Area Networks
- 600.642 Advanced Topics in Cryptography

SYSTEMS
- 695.401 Foundations of Information Assurance
- 695.411 Embedded Computer Systems—Vulnerabilities, Intrusions, and Protection Mechanisms
- 695.711 Java Security
- 695.712 Authentication Technologies in Cybersecurity
- 605.401 Foundations of Software Engineering
- 605.412 Operating Systems
- 605.421 Foundations of Algorithms
- 605.704 Object-Oriented Analysis and Design
- 605.715 Software Development for Real-Time Embedded Systems
- 605.716 Modeling and Simulation of Complex Systems
- 600.643 Advanced Topics in Computer Security
- 600.648 Secure Software Engineering
- 600.650 Advanced Topics in Software Security
- 650.471 Cryptography & Coding

INDEPENDENT STUDY
- 695.801 Independent Study in Cybersecurity I
- 695.802 Independent Study in Cybersecurity II

Please refer to the course schedule [ep.jhu.edu/schedule] published each term for exact dates, times, locations, fees, and instructors.

* 650.xxx courses are offered through the Information Security Institute.
† 600.xxx courses are offered through the full-time Department of Computer Science.
‡ 650.xxx courses are offered through the Information Security Institute.