Cybersecurity Career Track
MSIS Advising Sheet

Overview

The MSIS program is an ideal degree from which to launch a career in cybersecurity by learning in-depth, hands-on knowledge in cyber threats and threat intelligence, vulnerabilities in information systems, cyber risk mitigation, and compliance assessment. The Cybersecurity career track begins with the Business Core courses required for all MSIS students to develop a general understanding of business issues. It continues with courses from the MSIS IS Technology and Management requirements. Students are then encouraged to select courses relevant to the Cybersecurity Career Track, which includes offerings from a variety of disciplines to further develop their cybersecurity competencies, and to learn the application of these skills. The MSIS cybersecurity career track is ideal for any graduate student seeking a career position related to cybersecurity including cybersecurity (or information security) analyst, security architect, security director/manager, systems administrator, network architect or engineer, forensics investigator, auditor, and systems engineer or integrator. Among the military positions available are military intelligence officer, information technology specialist, criminal investigations special agent, and information warfare officer. A cybersecurity career path can lead to executive positions such as Chief Information Officer and Chief Security Officer.

MSIS Requirements

Business Core (9 units) (Waiveable)

1. B A 625. Financial and Management Accounting (3)
2. B A 627. Marketing (3)
3. B A 628. Operations and Supply Chain Management (3)

IS Technology (9 units - required)

1. (Recommended) MIS 686. Enterprise Data Management (3)
2. (Required) MIS 687. Business Data Communications (3)
3. (Recommended) MIS 691. Decision Support Systems (3)
4. (Required) MIS 695. Business Systems Analysis and Design (3)
5. MIS 697. Project Planning and Development (3)
6. MIS 752. Seminar in Supply Chain and Enterprise Resource Planning (3)

IS Management (9 units – choose 3 of the following)

2. MIS 688. Information Systems and Strategies in Organizations (3)
3. MIS 748. Seminar in Applied Multivariate Analytics (3)
4. MIS 749. Business Analytics (3)
5. MIS 750. Strategic Project Management (3)
6. (Required) MIS 755. Information Systems Security Management (3)
Thesis Option or Directed Readings with Examination (3 units)

1. B A 799A. Thesis Research (3)
2. MIS 790. Directed Readings in MIS (3)

Cybersecurity Career Track (12 units – choose 4 of the following)

1. (Required) MIS 515. Intermediate Programming for Business Applications (3)
2. (Required) MIS 585. Fundamentals of Cybersecurity Management (3)
3. MIS 620. Electronic Business and Big Data Infrastructures (3)
4. MIS 686. Enterprise Data Management (3) OR MIS 691. Decision Support Systems (3)
5. HSEC 690. Cyber Warfare & Cyber Terrorism (3)
6. HSEC 690. Real-time Intelligence Analysis & Data Fusion (3)
7. ACCTG 621. Accounting Information Systems (3)
8. ACCTG 675. AIS Control and Audit (3)
9. Other courses may be identified by working with an advisor. Also, students are encouraged to consult advisors to do an independent study of a chosen subject.

Open Elective (3 Units)

Note: For students pursuing the Cybersecurity Career Track, we recommend satisfying the 3 units of open elective by selecting an additional course from the courses listed above.

Advising

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