INFORMATION SECURITY MANAGEMENT (ISM)

600 Level Courses

ISM 603: Fundamentals of Information Security. 3 credits.
This course will cover foundational technical concepts as well as managerial and policy topics on a variety of information and cyber security topics. The purpose of the course lectures, reading, in-class presentations, and examinations are to ensure that students have sufficient technical awareness and managerial competence related to information security and assurance. Students will examine the nature of threats and vulnerabilities, cryptography, software vulnerabilities, managing risk, and security controls. Offered by School of Business (http://catalog.gmu.edu/colleges-schools/business/). May not be repeated for credit.

Registration Restrictions:
Enrollment limited to students with a class of Graduate.
Enrollment is limited to students with a major in Information Security Mgmt.
Enrollment limited to students in a Master of Science degree.

Schedule Type: Lecture

Grading:
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

ISM 620: Security of Communication Networks. 3 credits.
This course provides students with a knowledge of network security and related topics in securing communication networks. In context of CIA triad of information security, threat classifications to the communication networks are discussed: eavesdropping (confidentiality), man-in-the-middle (integrity), and denial-of-service (availability). Real world examples of attack methods and attacks on communication networks and networked applications are discussed to translate principles into reality. Security design and architecture consisting of authentication, authorization, access control, traffic monitoring, secure protocols are covered. The course adopts "learning by doing" to connect principles to practice and provide insight into practical implementation. Offered by School of Business (http://catalog.gmu.edu/colleges-schools/business/). May not be repeated for credit.

Registration Restrictions:
Enrollment limited to students with a class of Graduate.
Enrollment is limited to students with a major in Information Security Mgmt.
Enrollment limited to students in a Master of Science degree.

Schedule Type: Lecture

Grading:
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

ISM 640: Analytics Driven Management of Security Operations. 3 credits.
This course teaches how to use analytics to support decision making of information security managers. The course teaches how to create effective analytics driven tools for security monitoring, incident detection and for informing decisions in formulating response to incidents as well as ongoing review of information security policies. The course teaches you how to create reports, charts, dashboards, lookups, and alerts. Using examples and hands-on exercises with commercially used tools such as Splunk, to familiarize students with real-world implementations. The course bridges this knowledge with creation of incident handling and response plans to maintain business continuity. Offered by School of Business (http://catalog.gmu.edu/colleges-schools/business/). May not be repeated for credit.

Registration Restrictions:
Required Prerequisites: (ISM 603B, 620B and 630B).
B- Requires minimum grade of B-.
Enrollment limited to students with a class of Graduate.
Enrollment is limited to students with a major in Information Security Mgmt.
Enrollment limited to students in a Master of Science degree.

Schedule Type: Lecture

Grading:
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

ISM 692: Internship and Professional Development Experience. 3 credits.
Professional experience in conjunction with academic development. Hands-on experience is an important part of academic and career preparation and may be completed by an internship, consulting project, independent study or additional global experience. Must involve an average of 15 hours per week and be approved by program director.
Offered by School of Business (http://catalog.gmu.edu/colleges-schools/business/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment limited to students with a class of Graduate.

Enrollment is limited to students with a major in Information Security Mgmt.

Enrollment limited to students in a Master of Science degree.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**ISM 710:** Managing Information Security with Vendors and Partners. 3 credits.
This course addresses various important information security issues related to IT and non-IT vendors and partners of organizations operating in an increasingly global economy. Topics covered include information security related issues that need considered when managing IT vendors of hardware, software, or managing services (cloud, IT operations, security). Other topics covered include supply chain and cybersecurity, information security considerations during organizational change, downsizing as well as mergers and/or acquisitions. Offered by School of Business (http://catalog.gmu.edu/colleges-schools/business/). May not be repeated for credit.

**Registration Restrictions:**
**Required Prerequisite:** ISM 603\(^B\).
\(^B\) Requires minimum grade of B-.

Enrollment limited to students with a class of Graduate.

Enrollment is limited to students with a major in Information Security Mgmt.

Enrollment limited to students in a Master of Science degree.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**ISM 720:** Economics of Information Security. 3 credits.
Cybersecurity is more than a technical problem: security failures are caused as often by bad business decisions and incentive systems as by bad technical designs. This course provides an introduction to fundamental economic issues behind cybersecurity. It focuses on understanding the factors affecting the security decisions of organizations and individuals in the ecosystem of security products/services, as well as economic mechanisms and tools that help make better security decisions, through the lens of economic concepts and principles. Offered by School of Business (http://catalog.gmu.edu/colleges-schools/business/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment limited to students with a class of Graduate.

Enrollment is limited to students with a major in Information Security Mgmt.
ISM 792: Special Topics in Information Security Management. 3 credits. This course uses a seminar-based pedagogy to examine topics of state-of-the-art in information security based on faculty research and student interest. Sections established as necessary to focus on various topical issues that emerge in the research and practice of management of information security. Offered by School of Business (http://catalog.gmu.edu/colleges-schools/business/). May not be repeated for credit.

Registration Restrictions:
Required Prerequisite: ISM 603B.
B- Requires minimum grade of B-.

Enrollment limited to students with a class of Graduate.

Enrollment is limited to students with a major in Information Security Mgmt.

Enrollment limited to students in a Master of Science degree.

Schedule Type: Lecture

Grading:
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)