

Information Security/Assurance - M.S.

Please note that this program will not be offered on the Online Campus for the 2019-2020 Academic Year.

The Information Security/Assurance Master of Science degree program builds cogently on the body of knowledge associated with the protection of networks, communication channels and information, and incorporates a set of core competencies in both technology and business as they relate to planning, implementing and managing system- and enterprise-level security. This program is targeted for students who have bachelor's degrees in information technology, computer science, and network and software engineering, as well as others who have earned bachelor's degrees in fields outside these areas but need the graduate-level degree to advance professionally. All students must complete a capstone project.

Upon completion of the program, graduates are expected to:

- Research, establish and apply strategies and solutions that demonstrate an understanding of security foundations and the practical applications in the information security/assurance field.
- Integrate information security solutions through the alignment of appropriate security methodologies to different security situations.
- Develop system security contingency plans and disaster recovery procedures.
- Propose and test policies and procedures to ensure information systems reliability and availability and the prevention of unauthorized access.
- Effectively communicate information security assessments, plans and actions to all stakeholders, both technical and nontechnical.
- Assess and summarize the legal standards, laws and regulations related to information security/assurance in the global community.

This program is a 12-course degree with a 6-course core and 5-course focus area. The final program requirement is a 3.0 credit capstone research project.

ISA5005 Network Fundamentals (offered online only) or an approved equivalent is a requirement for this program. Students who do not have this course or an approved equivalent within their undergraduate program, or who transferred in, will need to complete this foundation course prior to registering for core and focus classes.

Information Security/Assurance

Master of Science (M.S.)

Foundation Course (Offered online only)

ISA5005	Network Fundamentals	3.0
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Core Courses

ISA5020	Foundations of Information Security Management	3.0
ISA5030	Legal and Ethical Principles in IT	3.0
ISA5040	Network Security and Cryptography	3.0
ISA5050	Digital/Computer Forensics and Investigation	3.0
MATH5100	Statistical Methods	3.0
RSCH5700	Research and Inquiry	3.0

Required Focus

Choose one:		15
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Technical Focus Courses (Providence campus only)

ISA5085	Principles of Programming	
ISA6010	Software Security Testing	
ISA6020	Securing Virtualized and Cloud Infrastructures	
ISA6030	Hacking Countermeasures and Techniques	
ISA6040	Advanced Network Intrusion Detection and Analysis	

Business Focus Courses (Online campus only)

ITEC6524	Enterprise Data Management	
ISA6050	Business Continuity Planning	
ISA6060	Risk Management and Incident Response	
ISA6070	Cyber Science and IT Business Operations	
ISA6080	Information Security Policy and Governance	

Career Capstone Course

ISA6090	Information Security & Assurance Capstone Research Project	3.0
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Total Credits		36.0-39.0
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