

INFORMATION SECURITY & INTELLIGENCE CORE

MISI 600 Communication Strategies

Students examine and apply effective communication strategies for success in a global business environment. Topics include digital communication strategies such as personal web sites, blogs, social media, secure communications, and non-traditional digital channels such as IRC forums in the context of academic, business, and underground research and communication strategies. Students will review and apply effective interpersonal communication techniques in both face-to-face and digital environments.

MISI 605 Intelligence Vulnerabilities

Students will research vulnerabilities to intelligence, including processes and technical threats such as malware, criminal activities, and technological exposures. Unusual environments such as power and transportation systems, artificial intelligence, and robotics, as well as various file and storage technologies will be evaluated. The potential security exposure of nano technology and incorporating environments will also be incorporated.

MISI 610 Database Management and Security

Students investigate progressive database management and administration principles. Topics include design, implementation, management, and security techniques. Students utilize data definition and manipulation languages on leading database platforms. Emerging trends in database technology are also scrutinized.

MISI 629 Legal, Ethical and Fraudulent Issues

Students will analyze legal and ethical issues as they relate to the business environment. Ethical practices, privacy, privacy by design, copyright and licensing issues as they relate to proprietary and personal information are incorporated. Methods to detect and prevent fraudulent practices on a personal and organizational scale are explored. Domestic and international issues, including organized criminal activity, and the role of technology to carry out fraudulent schemes is incorporated into the course framework.

PROJ 640 Project Management

Students examine the project management framework, including project management context and processes. Topics include project management processes, knowledge areas, life cycles and standards. Particular emphasis is placed on project integration, scope and time management.

MISI 660 Information Security/Assurance

Students investigate the concepts, methodologies and lifecycle of information security/assurance and management practices. Topics include risk analysis, legal regulations and compliance, security audits, security policies and governance and threat and vulnerability assessment. Students evaluate various standards and guidelines and security technologies to devise effective security controls.

MISI 665 Secure Information Systems

Students develop and understand the strategic framework in which contemporary organizations evaluate, develop and utilize secure information systems. The student will be introduced to the secure information system life cycle, software vulnerabilities, application architecture, and an understanding of current and future trends in information system technology including the use of cloud services. An integrating course project is required.

MISI 799 Integrated Capstone

The Integrated Capstone Project is the culminating activity in the Master of Science in Information Security & Intelligence (ISI) program. The project integrates learning from across the curriculum in a definitive investigation within the ISI field. A defensible written deliverable and comprehensive examination is required.

OPTIONAL INTERNSHIP

MISI 691 Internship

An internship with work experience designed to be relevant to the student's academic pursuits, personal development, and professional preparation. The work experience must last a minimum of 10 weeks with credits based on total hours worked. 1 credit = 80 hours minimum, 2 credits = 160 hours minimum, 3 credits = 240 hours minimum. Detailed reports of work experience required.

BUSINESS INTELLIGENCE CERTIFICATE COURSES

MISI 740 Business Intelligence (prerequisite MISI 610)

An investigation of business intelligence and evaluation of analytical data used in strategic decision making. Topics include tracking, managing and understanding organized data, as well as identifying and measuring performance metrics. Includes applied decision making using appropriate tools and techniques. Decision support systems, data warehousing and emerging topics are explored.

MISI 742 Geographic Information Systems (prerequisite MISI 610)

An investigation of the use of geographic information systems in an analytical and data intelligence context. Topics include tracking, visualization and mapping organized data for problem solving and/or communication. Includes application of one or more GIS tools into decision making in complex and often competing environments.

MISI 748 Project in Business Intelligence (prerequisite MISI 740)

Students evaluate current practices and research in Business Intelligence to develop a framework used in constructing a project related to their studies in Information Security and Intelligence. Students will use established and emerging methodologies to evaluate their project and present results.

INCIDENT RESPONSE CERTIFICATE COURSES

MISI 662 Pen Text/Vulnerability Assess (prerequisite MISI 660)

Students investigate the purposes and practice of network penetration testing as a component of an information security program. Students research the purposes of network penetration testing and various options for executing network penetration tests. Students design, conduct, and interpret network penetration tests on laboratory networks and systems, to include the application and validation of corrective measures.

MISI 664 Digital Forensics/Incident Response (prereq MISI 660)

Students will learn the digital evidence collection and analysis process utilizing a variety of methods and technologies. Nano technology forensics using Digital Laser Microscopy will be incorporated. Threat and response plans, as well as proactive security measures will be developed and applied to multiple scenarios including computer and mobile technology. Reporting, analysis, and security improvement feedback cycle will also be reviewed.

MISI 668 Project in Incident Response (prereq MISI 662 or 664)

Students evaluate current practices and research in Incident Response to develop a framework used in constructing a project related to their studies in Information Security. Students will use established and emerging methodologies to evaluate their project and present results.

PROJECT MANAGEMENT CERTIFICATE COURSES

PROJ 642 Project Leadership (prerequisite PROJ 640)

This course will assess best practices on leadership, communication and management of virtual teams in project management. Students will gain insights into their own leadership skills through assessments and case studies. The course will also examine various communication and conflict resolution techniques and the challenges of managing virtual teams and assess various team building tools and techniques. Related topics such as ethics and diversity will be included in our discussions and learning activities.

PROJ 644 Project Risk & Quality Management (prereq PROJ 640)

Students will identify and demonstrate project risk management processes including risk identification, risk assessment (qualitative and quantitative), developing a risk contingency budget, and determining risk mitigation strategies. Students will also examine project quality management including the history of quality management, identification of quality standards and goals for projects, and tools and techniques for monitoring quality in the context of ethical and cultural constraints.

PROJ 648 Project in Program & Project Mgmt (prereq PROJ 640)

Students evaluate current practices and research in Program and Project Management to develop a framework used in constructing a project related to their studies in Project Management. Students will use established and emerging methodologies to evaluate their project and present results.