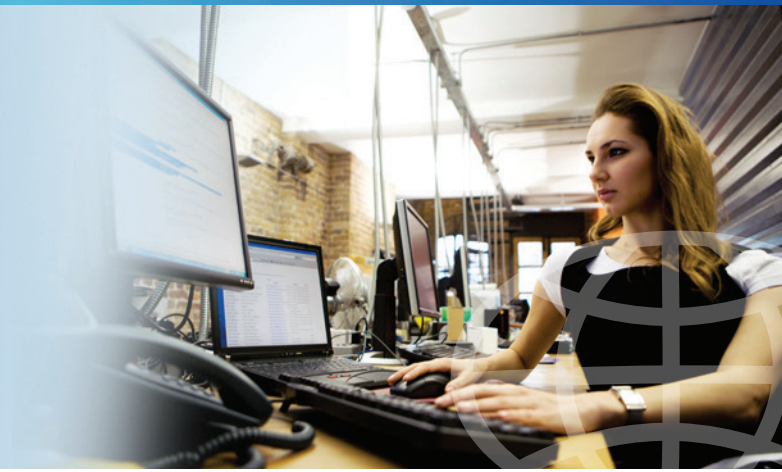# MASTER OF SCIENCE IN INFORMATION TECHNOLOGY (MSIT)

Specialization in
Information Assurance and Security

OVERVIEW

AIU® offers an industry-relevant MSIT program with a specialization in Information Assurance and Security for students interested in understanding information security technologies as applied to operating systems, database management systems and computer networks.

WHY AIU?

AIU offers a streamlined, real-world curriculum and flexibility to help school revolve around your life, not the other way around. Along with market-relevant undergraduate and graduate degrees, our industry-focused specializations allow for in-depth study, with half of your master's courses in your area of interest. To accommodate busy lives, we offer full- and part-time programs.

COURSEWORK

CURRICULUM INCLUDES

In this specialized curriculum, you can study the skills needed to protect an organization's information assets. The important areas covered include threats and vulnerabilities, cryptography, authentication and access control, security models, network security, trusted computer systems, distributed-systems security, World Wide Web security, applications security, information systems audit, and security management and policies.

This real-world specialization offers the opportunity for in-depth study, with half of your courses in your area of interest. It can help you work to develop a focused, industry-specific knowledge base common to IT professionals in the field of information assurance and security. For example:

- In **Principles of Information Security**, students are introduced to the three major goals of information security: confidentiality, integrity and availability.

- In **Applied Cryptography and Network Security**, students can explore how to apply secure protocols over networked systems using cryptography. Symmetric and asymmetric encryption are also covered.

- In **Legal Issues in Information Security and Incident Response**, students explore current issues in network security, and apply security concepts. The class focuses on technical topics, as well as privacy and policy issues.

- In **IT Auditing and Security Risk Management**, students can study information systems control, application audit, security threats, security risk types, computer attacks, countermeasures and risk management.

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MASTER OF SCIENCE IN INFORMATION TECHNOLOGY (MSIT)
Specialization in **Information Assurance and Security**

This AIU Master of Science in Information Technology (MSIT) degree program is designed to help students develop the industry-relevant knowledge and skills specific to the area of Internet security. In this industry-focused curriculum, you'll have an opportunity to learn how to use secure protocols over networked systems using cryptography. You can also explore current issues in network security and apply security concepts. Courses focus on technical topics as well as privacy and policy issues.

FOCUS ON YOUR SPECIFIC AREA OF INTEREST
By studying advanced topics in information assurance and security to complete the specialization requirements, you have an opportunity to acquire industry-relevant knowledge and skills specific to the area of information assurance and security.

A CURRICULUM TAUGHT BY EXPERIENCED PROFESSIONALS
In addition to a quality curriculum based on industry-relevant standards, AIU's MSIT with a specialized focus in Information Assurance and Security is taught by experienced faculty, many who have worked in the fields they teach. This offers you an opportunity to learn from professionals who can share their understanding of the qualities and skills sought in today's competitive marketplace for information assurance and security professionals.

OUTCOMES

WE CAN HELP YOU LEARN HOW TO

- Identify the physical and logical threats and vulnerabilities present in new and existing information system infrastructures.
- Identify relevant security technologies and techniques needed to secure an information infrastructure.
- Implement technical and administrative control measures to protect information assets and comply with regulatory standards.
- Conduct an analysis of existing and new information systems infrastructures.
- Conduct an information systems audit.

REQUIRED COURSES

PROGRAM CORE

ITCO 610	Principles of Information Systems	6
ITCO 620	Object-Oriented Applications	6
ITCO 630	Database System Design and Implementation	6
ITCO 650	Enterprise Networks	6

Total Core Requirements — **24 Credits**

INFORMATION ASSURANCE AND SECURITY SPECIALIZATION COURSES

ITAS 661	Principles of Information Security	6
ITAS 663	Applied Cryptography and Network Security	6
ITAS 665	Legal Issues in Information Security and Incident Response	6
ITAS 669	IT Auditing and Security Risk Management	6

Total Specialization Requirements — **24 Credits**

Total Master Degree Requirements — **48 Credits**