

# Bachelor of Science in Information Technology (BSIT)

## Specialization in Information Assurance and Security



### OVERVIEW

From mission-critical business systems to e-commerce and the Internet, IT is not only an industry in its own right but also a fundamental building block of all other industries. AIU® offers an industry-current BSIT program with an in-depth specialization in Information Assurance and Security designed to help students learn about the types of information technology security used in business today, as well as the practices that should be in place in any organization to ensure security. The program also addresses issues of physical and operations security.

### CURRICULUM INCLUDES

In this specialized curriculum, you can gain experience in the major areas of system and network assurance and security, which includes wireless security, coping with insider threats and hardening operating systems.

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

**Ethical Hacking and Penetration Testing I:** students can study intrusion detection, server security (with emphasis on the Windows operating system and server), and related advanced administration tasks on enterprise servers.

**Information Systems Control and Auditing:** students study essential topics in information systems control, including types of audits and risks, management and application control frameworks, audit software and tools, concurrent auditing techniques, data integrity, system effectiveness, IT services delivery, life-cycle management, information asset protection and much more.

**Principles and Methods in Cryptographic Security:** students may learn to determine appropriate cryptographic targets and methods, digital-key management, cryptographic vulnerabilities and implementation of effective cryptographic methodologies to secure enterprise-wide information systems.

### WE CAN HELP YOU

- Summarize details of essential computer concepts
- Use an operating system interface to access, add, troubleshoot and configure hardware, and manage files
- Implement a relational database management system utilizing the concepts of database design and data modeling
- Develop business applications using programming languages, tools and software development methodologies
- Manage security threats and risks by applying industry-best practices to assure information integrity, confidentiality, availability, non-repudiation and authenticity

\* Not all credits are eligible to transfer. See the University Catalog for transfer credit policies.

### COURSEWORK

### OUTCOMES

## WHY AIU?

AIU offers a streamlined, real-world curriculum and flexibility designed to help you schedule school around your life, not the other way around. Along with industry-relevant undergraduate and graduate degrees, our industry-focused specializations allow in-depth study of the field.

To accommodate busy lives, we offer full- and part-time program options and transfer-in credit\* for eligible college, work and military experience, which could cut down on the time it takes to earn a degree.



[AIUniv.edu](http://AIUniv.edu)

# Bachelor of Science in Information Technology (BSIT)

## Specialization in Information Assurance and Security

The AIU Bachelor of Science in Information Technology (BSIT) degree program offers a dynamic curriculum focused on industry-relevant technology trends and applications designed to help students learn how to evaluate emerging technologies in the application of appropriate information systems to manage and achieve organizational goals and objectives.

### FOCUS ON YOUR SPECIFIC AREA OF INTEREST

By studying key topics in Information Assurance and Security to complete the upper division's core specialization requirements, you have an opportunity to focus your studies on an area that is gaining attention from an increasingly security-conscious business community.

### A SPECIALIZED CURRICULUM TAUGHT BY EXPERIENCED PROFESSIONALS

In addition to a quality curriculum based on industry-relevant standards, AIU's BSIT 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.

#### GENERAL EDUCATION COURSES

ENGL106	English Composition I	4.5
ENGL107	English Composition II	4.5
MATH125	General College Mathematics	4.5
MATH133	College Algebra	4.5
UNIV103	Academic and Professional Success	4.5
UNIV106	Technology and Information Literacy	4.5
UNIV109	Interpersonal Communication	4.5
	Humanities (2 courses)	9
	Natural Sciences (2 courses)	9
	Social and Behavioral Sciences (2 courses)	9

**Total General Education Requirements 58.5**

#### CORE COURSES

ITCO101	Discovering Information Technology	4.5
ITCO103	Introduction to Computer and Network Hardware	4.5
ITCO107	Developing Professional Communications	4.5
ITCO211	Introduction to Operating Systems	4.5
ITCO221	Fundamentals of Programming and Logic	4.5
ITCO231	Introduction to Databases	4.5
ITCO251	Network Infrastructure Basics	4.5
ITCO361	Information Technology Security	4.5
ITCO381	Introduction to Web Systems and Media	4.5
ITCO391	Human/Computer Interfaces and Interactions	4.5
ITCO327	Introduction to Mobile Technologies and Internet of Things	4.5

#### CORE COURSES (CONTINUED)

ITCO498	Program Capstone	4.5
MGMT412	Project Management	4.5

**Total Core Requirements 58.5**

#### GENERAL ELECTIVE COURSES

GEN ELEC	General Electives	22.5
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**Total General Elective Requirements 22.5**

#### INFORMATION ASSURANCE AND SECURITY SPECIALIZATION

ITCO299	Comprehensive IT Project	4.5
ITCO341	Applications of Discrete Mathematics and Statistics in IT	4.5
ITCO425	System Architecture and Integration	4.5
ITAS362	Introduction to Information Assurance and Information Security	4.5
ITAS363	Telecommunications and Network Infrastructure Security	4.5
ITAS365	Information Systems Control and Auditing	4.5
ITAS367	Principles and Methods in Cryptographic Security	4.5
ITAS465	Ethical Hacking and Penetration Testing	4.5
ITAS469	IT Governance for Information Security Managers	4.5

**Total Specialization Requirements 40.5**

**Total Bachelor's Degree Requirements 180**

For important information about the educational debt, earnings, and completion rates of students who attended these programs, go to [www.aiuniv.edu/disclosures](http://www.aiuniv.edu/disclosures). AIU cannot guarantee employment or salary. Not all programs are available to residents of all states. 1292779 3-18

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