

# Bachelor of Science in Information Technology (BSIT)

Concentration in **Cybersecurity**



## OVERVIEW

Private and public sector entities depend on information technology leaders to conceptualize, implement, and manage high quality, secure information systems to support their organizations. AIU® offers an industry-relevant BSIT program with a concentration in Cybersecurity designed to help students learn about the types of cybersecurity tools, techniques, and processes that are used in organizations today, as well as the practices that should be in place in organizations to ensure their systems and data are secure.

### CURRICULUM INCLUDES

In this specialized curriculum, you can work to develop experience in the major areas of system and network security, which includes countermeasures, coping with insider threats, and hardening operating systems.

This real-world concentration can help you develop a focused, industry-specific knowledge base common to IT professionals in the field of Cybersecurity. For example:

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

**Network Defense and Countermeasures:** students can explore network defense topics to include intrusion detection, network security, and security incident management.

**Cybersecurity Operations:** students can study incident response methodologies and proper methods of handling digital forensic evidence and explore national and international legal aspects of digital forensics.

## COURSEWORK

### WE CAN HELP YOU

- Articulate ethical, legal, and professional responsibilities of information technology professionals to include societal and global impact
- Communicate technical information verbally, written, and graphically in various professional settings
- Design and maintain computer-based solutions based on user or system requirements, best practices and industry-relevant tools and technologies
- Recommend computing solutions based on evaluation of current technologies, principles, and theories
- Function effectively on teams in various roles appropriate for the information technology discipline

## OUTCOMES

\* Transfer credit is evaluated on an individual basis. Not all credits are eligible to transfer. See the University Catalog for transfer credit policies.

## 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 degree programs, our industry-focused concentrations 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.

American InterContinental University is a member of the American InterContinental University System. The System is accredited by the Higher Learning Commission ([hlcommission.org](http://hlcommission.org)), an institutional accreditation agency recognized by the U.S. Department of Education.

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

# Bachelor of Science in Information Technology (BSIT)

## Concentration in Cybersecurity

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 Cybersecurity to complete the upper division's core and concentration requirements, you have an opportunity to focus your studies in the areas of network security, cybersecurity operations, and ethical hacking.

### A SPECIALIZED CURRICULUM TAUGHT BY EXPERIENCED PROFESSIONALS

In addition to a quality curriculum based on industry-relevant standards, AIU's BSIT with a focus in Cybersecurity 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 utilized in today's marketplace for Cybersecurity 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 |
| ITCO105 | Information Technology and Society                             | 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 |
| ITCO299 | Comprehensive IT Project                                       | 4.5 |
| ITCO361 | Information Technology Security                                | 4.5 |
| ITCO385 | Introduction to Mobile Technologies and the Internet of Things | 4.5 |

#### CORE COURSES (CONTINUED)

|         |  |     |
|---------|--|-----|
| ITCO391 | Human/Computer Interfaces and Interactions | 4.5 |
| ITCO498 | Program Capstone for IT                    | 4.5 |

**Total Core Requirements** 58.5

#### ELECTIVES

|   |      |
|---|------|
| Select 7 undergraduate elective courses       | 31.5 |
| Select 3 undergraduate Information Technology | 13.5 |
| Elective (ITCO/AIML/AAIS/ITEL) courses        |      |

**Total Elective Requirements** 45

#### CYBERSECURITY COURSES

|        |   |     |
|--------|---|-----|
| CYB320 | Linux Fundamentals for Cybersecurity    | 4.5 |
| CYB325 | Ethical Hacking and Penetration Testing | 4.5 |
| CYB330 | Network Defense & Countermeasures       | 4.5 |
| CYB400 | Cybersecurity Operations                | 4.5 |

**Total Concentration Requirements** 18

**Total Bachelor's Degree Requirements** 180