INFORMATION SECURITY AND ASSURANCE CONCENTRATION OVERVIEW

The Bachelor of Science in Information Technology with a concentration in information security and assurance is designed to expose you to the field of computer forensics. By gaining an understanding of basic network administrative principles, you can begin to grasp the subtleties within the operational field of cybersecurity.

Computer forensics is especially important to businesses. Digital forensic specialists are often called on to investigate, identify, and document the occurrence of computer crime.

As a graduate of the program, you’ll be prepared for the workplace with practical skills, including:

- Basic network administration
- Data analysis to prevent identity theft and fraud
- Installation and use of intrusion-detection system tools
- Security threat analyses

Real-World Connections

Through exposure to incidence response practices and procedures dedicated to analyzing and tracking intrusions, you will gain a practical understanding of the policies that govern information systems security, as well as the practices of computer forensics.

Professional Competencies of Graduates

Courses within the information security and assurance concentration could help students develop the following skills:

- Formulate innovative solutions for identified initiatives
- Assess the value of multiculturalism and diversity in a global environment
- Contribute to team goals and objectives through active participation and collaboration
- Engage in career development and advancement strategies, including effective networking, mentoring, and creating a personal brand
- Achieve goals through planning and prioritization

COURSE OUTCOMES

Network Administration

- Examine the features, editions, roles, and installation methods of a network operating system
- Administer server roles; features; storage options; file and print services; and file and folder permissions
- Configure Active Directory including domains, organizational units, user accounts, and group policy while ensuring compatibility with global networks
- Configure TCP/IP, DNS (Domain Name System) and DHCP (Dynamic Host Configuration Protocol) on a network server
- Manage virtualization using Hyper-V

Networking With TCP/IP

- Examine the TCP/IP networking model, IPv4 and IPv6 addressing, and basic IP packet structures
- Explore the protocols that operate at the lower layers of the TCP/IP model
• Analyze IPv6 Neighbor Discovery, addressing and name resolution on IP networks
• Examine TCP/IP Transport Layer Protocols
• Differentiate between IPv4 and IPv6, regarding deployment, benefits, and IP security,

**Computer Forensics**
• Examine the relationship of computers and criminal behavior
• Describe the field of computer forensics and investigations as a profession
• Analyze the processes involved in computer forensics
• Examine various data acquisition methods
• Compare current computer forensic tools
• Describe techniques of data analysis and validation to recognize identity theft and fraud

**Intrusion Detection and Incidence Response**
• Discuss intrusion detection and incident response principles and concepts
• Compare intrusion detection systems
• Analyze the security threat spectrum
• Demonstrate the ability to install and configure intrusion-detection system tools

• Interpret various security analytic measures
• Differentiate incident response strategies

**Digital Forensics**
• Examine digital forensics concepts and techniques
• Plan appropriate methods to secure digital evidence
• Apply various types of forensic analysis tools for data recovery to forensic scenarios
• Prepare audits and investigations of electronic computing devices
• Analyze forensic data from computers to investigate security breaches
• Investigate current practices and trends in digital and network forensics

**Information Systems Security**
• Examine information security concepts
• Analyze system vulnerabilities and threats
• Choose data encryption techniques and confidentiality best practices
• Employ solutions that provide protection against system attacks
• Develop information backup and data persistence procedures
• Design network security policies and procedures

**Professional Certification Information Websites**
Learn more about external certifications associated with this concentration:
• http://www.giac.org/certifications
• https://www.guidancesoftware.com/training/Pages/ence-certification-program.aspx

**JOB OUTLOOK FOR CAREERS IN INFORMATION SECURITY AND ASSURANCE**
Employment of security analysts is projected to increase 18% between 2014 and 2024, much faster than the average for all occupations.*

**JOB TITLES ASSOCIATED WITH INFORMATION SECURITY AND ASSURANCE**†
• Information Security Analyst
• IT Security Auditor
• Security Specialist

For comprehensive consumer information, visit kaplan.edu/info.


†Kaplan University’s programs are designed to prepare graduates to pursue the stated positions, which have varying responsibilities. However, the University cannot guarantee employment or career advancement. Additional training or certification may be required. In addition, job titles and responsibilities may vary from organization to organization.

To learn more about the Bachelor of Science in Information Technology click here or call 866.827.5268 (Toll Free).