ABOUT THIS DEGREE PROGRAM

A FOUNDATION IN TECHNOLOGY
This program is anchored with Tech Core, curriculum designed to help you build a foundation of interdisciplinary skills you’ll need for today’s Internet of Things (IoT) economy. You’ll learn relevant skills in operating systems, programming, hardware, connectivity and security – giving you a hands-on foundation in engineering technology, information technology and software and information systems.

A PROGRAM TO FUEL YOUR FUTURE
In this specialization, you’ll become the first line of defense against online attacks by learning to build defense mechanisms to protect applications, systems and networks. You’ll also explore network security testing, including countermeasure testing and the risk factor analysis needed to design a flexible and comprehensive security plan, and gain advanced skills in providing for business continuity and disaster recovery.

IS THIS PROGRAM FOR YOU?
If you’re interested in a career in information technology (IT) and have a passion for keeping data and networks secure from cyber criminals, this IT degree focused on cyber security may be the right fit for you.

CAREER OPPORTUNITIES
Graduates of DeVry’s Information Technology and Networking degree program with a specialization in Cyber Security may consider, but are not limited to, the following careers:

- Computer Network Support Specialist
- Computer Systems Analyst
- Information Security Analyst
- Penetration Tester (Ethical Hacker)
- Security Analyst
- Vulnerability Assessor

WHAT YOU’LL LEARN

ESSENTIALS
- Communicate methods and findings
- Collaborate in dynamic work environments
- Solve complex problems
- Analyze numerical data
- Apply appropriate technologies

TECH CORE
- Produce, secure, operate and troubleshoot small enterprise networks
- Network, secure and deploy digital devices and sensors into the IoT ecosystem
- Solve technical problems using an algorithmic approach and basic programming and coding methods
- Install and configure operating systems using command-line interface (CLI)

PROGRAM
- Develop applications in an IDE framework
- Design LANs and VLANs
- Understand architecture and design
- Understand operation, regulation and trends

SPECIALIZED
- Apply behavioral analytics to networks and devices to prevent, detect, and counter cybersecurity threats through continuous security monitoring
- Develop a balanced perspective on the administrative and technological elements of information security
- Apply principles of technology in the building, testing, operation and maintenance of connected and distributed digital-based systems and networks

QUICK FACTS

120 CREDIT HOURS
Minimum credit hours required for graduation

33% GROWTH
Nationally from 2020-2030 for Employment of Information Security Analysts¹

2 + 8 YEARS + MONTHS
Minimum length to graduation²

3-IN-1
Earn two additional credentials with our unique 3-in-1 design. All courses in our Networking Essentials certificate program and Information Technology and Networking associate degree are embedded in this program. So you can earn a certificate and an associate degree on the way to your bachelor’s degree.

WORK WITH IOT TECHNOLOGIES & SYSTEMS
Immerse yourself in the Internet of Things (IoT) world and obtain hands-on experience with IoT, cloud, software and security technologies and systems.

CERTIFICATION EXAM REIMBURSEMENT
We reimburse qualified students up to $300 for the cost of one industry certification exam attempt across a wide range of fields.

BE AN ACTIVE PART OF AN INCLUSIVE FUTURE
Customize your curriculum by choosing Diversity, Equity and Inclusion (DE&I) course alternates for your Communication Skills, Humanities and Social Science courses. These options highlight relevant topics to help empower you to promote an inclusive workplace.

²Not including breaks. Assumes year-round, full-time enrollment. Additional program information may be found at https://www.devry.edu/online-programs.html
### Essential Courses

**Communication Skills**
- ENGL112 Composition
- ENGL135 Advanced Composition
- ENGL216 Technical Writing
- **Select one**
  - SPCH275 Public Speaking
  - SPCH276 Intercultural Communication

**Humanities**
- LAS432 Technology, Society, and Culture
- **Select one**
  - ETHC232 Ethical and Legal Issues in the Professions
  - ETHC334 Diversity, Equity and Inclusion in the Workplace

**Social Sciences**
- ECON312 Principles of Economics
- SOCS185 Culture and Society
- **Select one**
  - SOCS325 Environmental Sociology
  - SOCS350 Cultural Diversity in the Professions

**Mathematics and Natural Sciences**
- MATH114 Algebra for College Students
- MATH221 Statistics for Decision-Making
- MATH234 Discrete Math in Information Technology
- PHYS204 Applied Physics with Lab

**Personal and Professional Development**
- CARD405 Career Development
- COLL148 Critical Thinking and Problem-Solving

### Tech Core Courses

**Technical Core**
- CEIS101 Introduction to Technology
- CEIS106 Operating Systems
- CEIS110 Introduction to Programming
- CEIS114 Introduction to Digital Devices
- NETW191 Fundamentals of Information Technology and Networking
- NETW211 Fundamentals of Cloud Computing
- SEC285 Fundamentals of Information Security

### Specialized Courses

**Cyber Security**
- SEC290 Fundamentals of Infrastructure Security
- SEC310 Principles and Theory of Security Management
- **One of:**
  - SEC311 Ethical Hacking
  - SEC321 Network Security Testing with Lab
- **One of:**
  - SEC340 Business Continuity
  - SEC360 Data Privacy and Security
  - SEC380 Cloud Computing Security
  - SEC440 Information Systems Security Planning and Audit

### Program Courses

**Information Systems and Programming**
- CEIS150 Programming with Objects
- CEIS236 Database Systems and Programming Fundamentals
- CEIS312 Introduction to Artificial Intelligence and Machine Learning

**Network Systems Administration**
- MGMT408 Management of Technology Resources
- NETW260 Intermediate Information Technology and Networking I
- NETW270 Intermediate Information Technology and Networking II
- NETW310 Wired, Optical and Wireless Communications with Lab
- NETW320 Converged Networks with Lab

**Career Preparation**
- CEIS299 Careers and Technology
- CEIS499 Preparation for the Profession
- MGMT404 Project Management
- TECH460 Senior Project

### Embedded Programs

Demonstrate Skills at Every Step

- **Bachelor's**
  - **Associate Certificate**
    - 23 Credit Hours
    - 60 Credit Hours
    - 120 Credit Hours

- **Embedded Programs**
  - Earn two additional credentials with our unique 3-in-1 design. All courses in our Networking Essentials certificate and Information Technology and Networking associate degree are embedded within this program. So you can earn a certificate and an associate degree on the way to your bachelor's degree.

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