Bachelor’s Degree Program

COMPUTER INFORMATION SYSTEMS

Specialization: Cyber Security Programming

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
Learn protocols and techniques necessary to secure and protect sensitive information and financial assets. You’ll also learn how cybersecurity teams work to secure, implement and maintain a robust information security systems and networks from cyberattack.

Is This Program for You?
Want to pursue a career in computer information systems and interested in working to prevent cybercrime? Then this program may be the right fit for you.

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

• Computer Programmer
• Computer Security Specialist
• Computer Systems Analyst
• Cyber Security Specialist
• Information Security Analyst

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
• Use advanced programming techniques
• Develop applications
• Understand network types and designs
• Deploy cryptographic and hacking methodologies

Specialized
• Understand and mitigate infrastructure security issues
• Develop standards, policies and procedures
• Mitigate web-based security threats
• Assess threats and develop countermeasures

QUICK FACTS

124 CREDIT HOURS
minimum credit hours required for graduation¹

28% GROWTH
nationally from 2016–2026 for Employment of Information Security Analysts²

2 + 8 YEARS MONTHS
minimum length to graduation³

TWO IN ONE
2-IN-1
Earn an extra credential with our unique 2-in-1 design. All courses in our Information Technology & Networking Associate degree are embedded within this program. So you can earn an associate degree on the way to your bachelor’s.

PORTABLE IOT KIT
You can simulate the Internet of Things (IoT) experience wherever you are. With our portable IoT Kit, you’ll get hands-on experience in how IoT technologies work in the real world. Your kit will include digital devices, sensors and other tools you will use to build relevant IoT 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.

“‘My professors have been awesome. They are patient and really explain the material and are willing to work with students if they need assistance.’”

- Katherine G., 2016 DeVry Graduate, Computer Information Systems

¹² for students enrolled at a Pennsylvania location
³Not including breaks. Assumes year-round, full-time enrollment. Additional program information may be found at https://www.devry.edu/degree-programs.html.

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- Katherine G., 2016 DeVry Graduate, Computer Information Systems
# Bachelor's Degree Program
## Computer Information Systems | Cyber Security Programming

### Essentials

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ENGL110</td>
<td>Communication Skills: Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL115</td>
<td>Communication Skills: Advanced Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL216</td>
<td>Communication Skills: Technical Writing</td>
<td>3</td>
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<td>SPCS275</td>
<td>Public Speaking</td>
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#### Humanities

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<tr>
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<tbody>
<tr>
<td>ETCH232</td>
<td>Humanities: Ethical and Legal Issues in the Professions</td>
<td>3</td>
</tr>
<tr>
<td>LAS432</td>
<td>Humanities: Technology, Society, and Culture</td>
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#### Social Sciences

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<tbody>
<tr>
<td>ECON312</td>
<td>Social Sciences: Principles of Economics</td>
<td>3</td>
</tr>
<tr>
<td>SOCS185</td>
<td>Social Sciences: Culture and Society</td>
<td>3</td>
</tr>
<tr>
<td>SOCS325</td>
<td>Social Sciences: Environment Sociology</td>
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#### Mathematics and Natural Sciences

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<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>MATH114</td>
<td>Mathematics and Natural Sciences: Algebra for College Students</td>
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</tr>
<tr>
<td>MATH221</td>
<td>Mathematics and Natural Sciences: Statistics for Decision-Making</td>
<td>3</td>
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<tr>
<td>PHYS204</td>
<td>Mathematics and Natural Sciences: Applied Physics with Lab</td>
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#### Personal and Professional Development

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<tbody>
<tr>
<td>CARD405</td>
<td>Personal and Professional Development: Career Development</td>
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<tr>
<td>COLL148</td>
<td>Personal and Professional Development: Critical Thinking and Problem-Solving</td>
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### Tech Core

<table>
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<tr>
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<tbody>
<tr>
<td>CEIS101</td>
<td>Tech Core: Introduction to Technology and Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CEIS106</td>
<td>Tech Core: Introduction to Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CEIS110</td>
<td>Tech Core: Introduction to Programming</td>
<td>3</td>
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<tr>
<td>CEIS114</td>
<td>Tech Core: Introduction to Digital Devices</td>
<td>3</td>
</tr>
<tr>
<td>NETW190</td>
<td>Tech Core: Fundamentals of Information Technology and Networking I</td>
<td>3</td>
</tr>
<tr>
<td>NETW200</td>
<td>Tech Core: Fundamentals of Information Technology and Networking II</td>
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### Program

#### Information Systems and Programming

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>CEIS236</td>
<td>Information Systems and Programming: Fundamentals</td>
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<tr>
<td>CISI70C</td>
<td>Information Systems and Programming: Programming with Lab</td>
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<tr>
<td>CIS247C</td>
<td>Information Systems and Programming: Object-Oriented Programming with Lab</td>
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#### Networking and Systems Administration

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<tr>
<td>NETW260</td>
<td>Networking and Systems Administration: Intermediate Information Technology and Networking I</td>
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</tr>
<tr>
<td>NETW270</td>
<td>Networking and Systems Administration: Intermediate Information Technology and Networking II</td>
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#### Information Technology and Networking

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<tbody>
<tr>
<td>CEIS210</td>
<td>Information Technology and Networking: Introduction to Cryptographic Methods</td>
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<tr>
<td>CEIS305</td>
<td>Information Technology and Networking: Operating Systems</td>
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<tr>
<td>NETW411</td>
<td>Information Technology and Networking: Information Security and Mobile Devices</td>
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<tr>
<td>SEC311</td>
<td>Information Technology and Networking: Ethical Hacking</td>
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<td>SEC321</td>
<td>Information Technology and Networking: Network Security Testing with Lab</td>
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#### Senior Project

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CEIS392</td>
<td>Senior Project: Product, Project, and People Management</td>
<td>3</td>
</tr>
<tr>
<td>CEIS494</td>
<td>Senior Project: Senior Project I</td>
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<tr>
<td>CEIS496</td>
<td>Senior Project: Senior Project II</td>
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#### Technology Career Preparation

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<tr>
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<th>Credit Hours</th>
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<tbody>
<tr>
<td>CEIS299</td>
<td>Technology Career Preparation: Careers and Technology</td>
<td>3</td>
</tr>
<tr>
<td>CEIS499</td>
<td>Technology Career Preparation: Preparation for the Profession</td>
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#### Specialized

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>SEC290</td>
<td>Specialized: Fundamentals of Infrastructure Security</td>
<td>3</td>
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<tr>
<td>SEC360</td>
<td>Specialized: Data Privacy and Security</td>
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<td>SEC370</td>
<td>Specialized: Web Security</td>
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<tr>
<td>SEC440</td>
<td>Specialized: Information Systems Security Planning and Audit</td>
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