

COMPUTER INFORMATION SYSTEMS

Specialization: Cyber Security Programming



ABOUT THIS DEGREE PROGRAM

TECH CORE 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 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
- Cyber Security Specialist
- Information Security Analyst
- Data Security Administrator
- Software Developer

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 graduation

35%
GROWTH
nationally from 2021-2031
for Employment of
Information Security
Analysts¹

SKILLS FOCUSED

SKILL FOCUSED CURRICULUM

Elements of our technology curriculum help prepare you to pursue certification opportunities that can validate your knowledge and skills.

- CompTIA Linux+
- CompTIA Network+
- CompTIA Cloud+
- EC Council Certified Ethical Hacker
- PCEP Certified Entry-Level Python Programmer
- CompTIA Security+
- CompTIA Pentest+
- CompTIA Project+

UP TO \$300

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.

MINIMUM COMPLETION TIME*

**2 years
8 months**

OR

NORMAL COMPLETION TIME**

4 years

ACCELERATE AT YOUR PACE

Choose the schedule that best fits your goals and commitments. You can earn your **Bachelor's Degree** in as little as **2 years 8 months**.

Or, follow a normal schedule and complete your program in 4 years.

*Per 12-month period, assumes completion of 3 semesters, enrollment in 12-19 credit hours per semester and continuous, full-time year-round enrollment with no breaks.

**Per 12-month period, assumes completion of 2 semesters and full-time enrollment in 12-19 credit hours per semester.

¹ <https://www.bls.gov/ooh/computer-and-information-technology/information-security-analysts.htm>. Growth projected on a national level. Local growth will vary by location. BLS projections are not specific to DeVry University students or graduates and may include earners at all stages of their career and not just entry level.

Computer Information Systems | Cyber Security Programming


ESSENTIALS

47
CREDIT HOURS


COMMUNICATION SKILLS¹

ENGL112 ²	Composition
ENGL135	Advanced Composition
ENGL216	Technical Writing


Select one

SPCH275	Public Speaking
SPCH276	Intercultural Communication 

HUMANITIES

LAS432	Technology, Society, and Culture 
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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 ³	Environmental Sociology
SOCS350	Cultural Diversity in the Professions 

MATHEMATICS AND NATURAL SCIENCES


MATH114	Algebra for College Students
PHYS204	Applied Physics with Lab
TECH221	Data-Driven Decision -Making

PERSONAL AND PROFESSIONAL DEVELOPMENT

CARD405	Career Development
COLL148	Critical Thinking and Problem Solving

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 course options – denoted by this icon  – highlight relevant topics to help empower you to promote an inclusive workplace.

TECH CORE

21
CREDIT HOURS

TECH CORE

CEIS101	Introduction to Technology and Information Systems
CEIS106	Introduction to Operating Systems
CEIS110	Introduction to Programming
CEIS114	Introduction to Digital Devices
NETW191	Fundamentals of Information Technology and Networking
NETW212	Introduction to Cloud Computing
SEC285	Fundamentals of Information Security

PROGRAM

41
CREDIT HOURS

INFORMATION SYSTEMS AND PROGRAMMING

CEIS150	Programming with Objects
CEIS209	Intermediate Programming
CEIS236	Database Systems and Programming Fundamentals
CIS313	AI-Driven Business Application Coding
CIS355A	Business Application Programming with Lab

INFORMATION TECHNOLOGY AND NETWORKING

SEC290	Fundamentals of Infrastructure Security
SEC305	Cybersecurity and Data Privacy
SEC311	Ethical Hacking
SEC322	Penetration Testing

CAREER PREPARATION

CEIS298	Introduction to Technical Project Management
CEIS499	Preparation for the Profession
MGMT404	Project Management
TECH460	Senior Project

¹14 for students enrolled at a New Jersey location

²Students enrolled at a New Jersey location take ENGL108 in lieu of this course.

³Students enrolled at a Nevada location must take POLI332 in lieu of this requirement.

Students enrolled at a New Jersey location must take an additional six semester-credit hours of general education coursework from among the following course areas: communication skills, humanities, social sciences, mathematics and natural sciences. Courses selected in humanities or social sciences should be upper-division coursework (DeVry courses numbered 300-499).

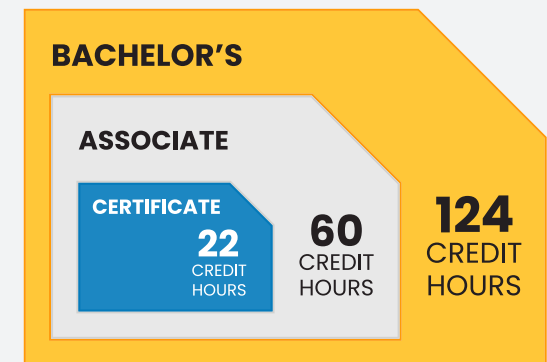
SPECIALIZED

15
CREDIT HOURS

CYBER SECURITY PROGRAMMING

NETW411	Information Security and Mobile Devices
SEC380	Cloud Computing Security
SEC395	Cybersecurity Architecture and Engineering
SEC440	Information Systems Security Planning and Audit

Demonstrate Skills at Every Step



EMBEDDED PROGRAMS

Earn two additional credentials with our unique 3-in-1 design. All courses in our Programming 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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