INFORMATION TECHNOLOGY & NETWORKING

Specialization: Cyber Security

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

In this specialization, you'll work to become the first line of defense against online attacks by learning to build defense mechanisms to protect applications, systems and networks. Explore network security testing, including countermeasure testing and the risk factor analysis needed to design a flexible and comprehensive security plan. Gain advanced skills to provide 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

32%
GROWTH
nationally from 2022–2032 for Employment of Information Security Analysts[1]

NICCS™
NATIONAL INITIATIVE FOR CYBERSECURITY CAREERS AND STUDIES

NICCS VERIFIED CURRICULUM
DeVry University's cybersecurity curriculum is acknowledged and verified as an approved provider by the National Initiative for Cybersecurity.
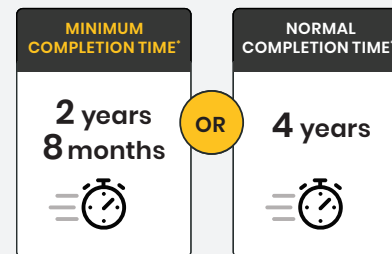
SKILLS FOCUSED

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

- CompTIA Security +
- CompTIA CySA+
- CompTIA PenTest+
- EC-Council CEH

MINIMUM COMPLETION TIME*

2 years 8 months

OR

NORMAL COMPLETION TIME**

4 years

ACCELERATE ON YOUR SCHEDULE

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.

* Minimum completion time does not include breaks and assumes 3 semesters of year-round, full-time enrollment in 12-19 credit hours a semester per 12-month period.
** Normal completion time includes breaks and assumes 2 semesters of enrollment in 12-19 credit hours per semester per 12-month period.

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ESSENTIALS

51 CREDIT HOURS

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
MATH234	Discrete Math in Information Technology
TECH204	Everyday Physics
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 System Security

PROGRAM

36 CREDIT HOURS

INFORMATION SYSTEMS AND PROGRAMMING

CEIS150	Programming with Objects
CEIS236	Database Systems and Programming Fundamentals
SEC313	Applied AI for Cybersecurity

NETWORK SYSTEMS ADMINISTRATION

NETW260	Intermediate Information Technology and Networking I
NETW270	Intermediate Information Technology and Networking II
NETW310	Wired, Optical and Wireless Communications with Lab
NETW404	Data Center Virtualization
TECH408	Applied AI for Management and Technology

CAREER PREPARATION

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

SPECIALIZED

14 CREDIT HOURS

CYBER SECURITY

SEC290	Fundamentals of Infrastructure Security
SEC395	Cybersecurity Architecture and Engineering
SEC399	Cybersecurity Career Preparation

One of:

SEC311	Ethical Hacking
SEC322	Penetration Testing

One of:

SEC305	Cybersecurity and Data Privacy
SEC340	Business Continuity
SEC380	Cloud Computing Security
SEC440	Information Systems Security Planning and Audit
SEC455	Security Operations Center

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.[2] So you can earn a certificate and an associate degree on the way to your bachelor's degree.

[2] Future programmatic changes could impact the ability to earn additional credentials en route to an eligible degree program. Refer to the academic catalog for details. The figures displayed represent the minimum credit hours required for graduation. Additional coursework may be necessary to complete program requirements.

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