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 program, document, test and debug applications and software packages. You’ll learn to understand the process of how software is conceived, specified and designed for an end user.

IS THIS PROGRAM FOR YOU?
Want to pursue a career in computer information systems and interested in the development of code and business programs? 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 Software Programming may consider, but are not limited to, the following careers:
- Computer Systems Analyst
- Computer Programmer
- Front-end and Back-end Developer
- Software Consultant
- 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
- Retrieve, organize and present data utilizing algorithms
- Integrate software engineering practices
- Design applications for various platforms
- Deploy advanced programming techniques

QUICK FACTS

124 CREDIT HOURS
minimum credit hours required for graduation

2 + 8 YEARS + MONTHS
minimum length to graduation

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

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

1 127 for students enrolled at a Pennsylvania location
2 Not including breaks. Assumes year-round, full-time enrollment. Additional program information may be found at https://www.devry.edu/online-programs.html.
Bachelor's Degree Program

Computer Information Systems | Software Programming

ESSENTIALS

COMMUNICATION SKILLS
ENGL112 Composition
ENGL135 Advanced Composition
ENGL216 Technical Writing
SPCH275 Public Speaking

HUMANITIES²
ETHC232 Ethical and Legal Issues in the Professions
LAS432 Technology, Society, and Culture

SOCIAL SCIENCES
ECON312 Principles of Economics
SOCS185 Culture and Society
SOCS326 Environmental Sociology

MATHEMATICS AND NATURAL SCIENCES
MATH114 Algebra for College Students
MATH221 Statistics for Decision-Making
PHYS204 Applied Physics with Lab

PERSONAL AND PROFESSIONAL DEVELOPMENT
CARD405 Career Development
COLL148 Critical Thinking and Problem-Solving

TECH CORE

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
NETW211 Fundamentals of Cloud Computing
SEC285 Fundamentals of Information Security

PROGRAM

INFORMATION SYSTEMS AND PROGRAMMING
CEIS150 Programming with Objects
CEIS209 Intermediate Programming
CEIS236 Database Systems and Programming Fundamentals
CEIS312 Introduction to Artificial Intelligence and Machine Learning
CIS355A Business Application Programming with Lab

INFORMATION TECHNOLOGY AND NETWORKING
NETW320 Converged Networks with Lab
SEC310 Principles and Theory of Security Management
SEC311 Ethical Hacking
SEC321 Network Security Testing with Lab

CAREER PREPARATION
CEIS299 Careers and Technology
CEIS499 Preparation for the Profession
MGMT404 Project Management
TECH460 Senior Project

SPECIALIZED

SOFTWARE PROGRAMMING
CEIS200 Software Engineering I
CEIS295 Data Structures and Algorithms
CEIS320 Introduction to Mobile Device Programming
CEIS400 Software Engineering II
CEIS420 Programming Languages and Advanced Techniques

DEMONSTRATE SKILLS AT EVERY STEP

EMBEDDED PROGRAMS
Our unique 3-in-1 design allows you to earn an additional two credentials. 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.

BACHELOR'S

ASSOCIATE

CERTIFICATE

60 CREDIT HOURS

120 CREDIT HOURS

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In New York, DeVry University operates as DeVry College of New York. DeVry University is accredited by The Higher Learning Commission (HLC). https://www.hlcommission.org. Keller Graduate School of Management is included in this accreditation. DeVry is certified to operate by the State Council of Higher Education for Virginia. DeVry's academic catalog, available via https://www.devry.edu/catalogs, contains the most current and detailed program information, including admission, progression and graduation requirements. Information contained herein is effective as of date of publishing. ©2021 DeVry Educational Development Corp. All rights reserved. Version 5/24/21