BACHELOR'S DEGREE PROGRAM | TECH - SOFTWARE AND INFORMATION SYSTEMS

COMPUTER INFORMATION SYSTEMS

Specialization: Software 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 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 Analysts
- 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

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+
- CompTIA Security+
- CompTIA Project+
- PCEP Certified Entry-Level Python Programmer

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*	OR	NORMAL COMPLETION TIME**
2 years 8 months		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.

DeVry University

Bachelor's Degree Program | Tech - Software and Information Systems

Computer Information Systems | Software Programming

ESSENTIALS

47 CREDIT HOURS

COMMUNICATION SKILLS[1]

ENGL112[2]	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[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
CEIS499	Preparation for the Profession
MGMT404	Project Management
TECH460	Senior Project

[1]14 for students enrolled at a New Jersey location
[2]Students enrolled at a New Jersey location take ENGL108 in lieu of this course.
[3]Students 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).

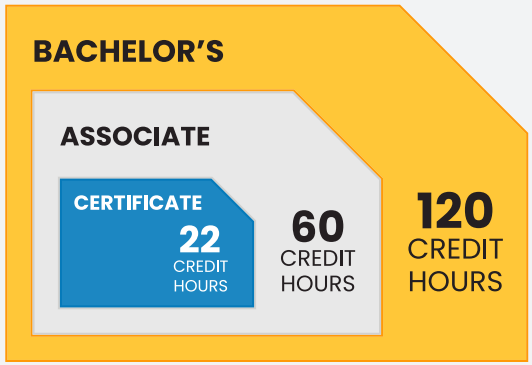
SPECIALIZED

15 CREDIT HOURS

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.

DeVry University