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
Develop the needed skills to build and maintain software products created to customer design specifications. Learn how software packages are tested, the methods used to build software and the types of programming languages available for various applications.

Is This Program for You?
Ready to dive deep into the world of software development and learn about the design and creation of new applications and software packages? Then this program may be the right fit for you.

CAREER OPPORTUNITIES
Graduates of DeVry’s Software Development degree program with a specialization in Software Design and Programming may consider, but are not limited to, the following careers:
- Scientific Software Programmer
- Software Application Developer
- Software Developer and Programmer
- Software Programmer and Analyst
- Software Systems Developer
- Web Developer and Programmer

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
• Design web distributed systems
• Develop applications
• Analyze and design software systems
• Product life cycle management

Specialized
• Design and develop applications and algorithms
• Utilize advanced strategies for software development
• Program and secure mobile devices
• Utilize advance programming techniques for app development

QUICK FACTS

121 CREDIT HOURS
minimum credit hours required for graduation

24% GROWTH
nationally from 2016-2026 for Employment of Software Developers

2 + 8 YEARS MONTHS
minimum length to graduation

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.

What are your career goals?
To create applications that will make a difference. DeVry is helping me by teaching me how to make those applications.

- Mayra S., 2017 DeVry Graduate, Computer Information Systems

1 https://www.bls.gov/ooh/computer-and-information-technology/software-developers.htm. Data reflects a national projected percentage change in employment from 2016-2026 and may not reflect local economic conditions.

2 Not including breaks. Assumes year-round, full-time enrollment. Additional program information may be found at https://www.devry.edu/degree-programs.html.
### Bachelor's Degree Program

**Software Development | Software Design and Programming**

#### Essentials (50 credit hours)
- **Communication Skills**
  - ENGL112 Composition
  - ENGL335 Advanced Composition
  - ENGL216 Technical Writing
  - SPC217 Public Speaking
- **Humanities**
  - ETHC232 Ethical and Legal Issues in the Professions
  - LAS432 Technology, Society, and Culture
- **Social Sciences**
  - ECON312 Principles of Economics
  - SOCS185 Culture and Society
  - SOCS235 Environmental Sociology
- **Mathematics and Natural Sciences**
  - MATH114 Algebra for College Students
  - MATH221 Statistics for Decision-Making
  - MATH233 Discrete Mathematics
  - PHYS204 Applied Physics with Lab
- **Personal and Professional Development**
  - CARD405 Career Development
  - COLL418 Critical Thinking and Problem-Solving

#### Tech Core (21 credit hours)
- **Tech Core**
  - CEIS101 Introduction to Technology and Information Systems
  - CEIS106 Introduction to Operating Systems
  - CEIS110 Introduction to Programming
  - CEIS214 Introduction to Digital Devices
  - NETW190 Fundamentals of Information Technology and Networking I
  - NETW200 Fundamentals of Information Technology and Networking II
  - SEC285 Fundamentals of Information Security

#### Information Systems and Programming (38 credit hours)
- **Information Systems and Programming**
  - CEIS236 Database Systems and Programming Fundamentals
  - CIS170C Programming with Lab
  - CIS247C Object-Oriented Programming with Lab

#### Application Development
- **CEIS295 Data Structures and Algorithms**
- **CIS321 Structured Analysis and Design**
- **CIS339 Object-Oriented Analysis and Design**
- **CIS355A Business Application Programming with Lab**
- **WEB375 Web Architecture with Lab**

#### Information Technology and Networking
- **CEIS305 Operating Systems**
- **CEIS392 Product, Project, and People Management**
- **CEIS494 Senior Project I**
- **CEIS496 Senior Project II**

#### Technology Career Preparation
- **CEIS299 Careers and Technology**
- **CEIS499 Preparation for the Profession**

#### Specialized (12 credit hours)
- **Software Design and Programming**
  - CEIS200 Software Engineering I
  - CEIS320 Introduction to Mobile Device Programming
  - CEIS400 Software Engineering II
  - CEIS420 Programming Languages and Advanced Techniques

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1. Students enrolled at a New Jersey location take ENGL108 in lieu of this course.
2. Students enrolled at a Pennsylvania location must take HUMN451 as part of this requirement.
3. Students enrolled at a Nevada location must take POLI332 in lieu of this requirement.

In New York, DeVry University operates as DeVry College of New York. DeVry University is accredited by The Higher Learning Commission (HLC), 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. Arlington Campus: 2450 Crystal Dr., Arlington, VA 22202. DeVry University is authorized for operation as a postsecondary educational institution by the Tennessee Higher Education Commission, www.tn.gov/thec. Nashville Campus: 3343 Perimeter Hill Dr., Nashville, TN 37211. Programs, course requirements and availability vary by location. Some courses may be available online only. All students enrolled in site-based programs will be required to take some coursework online and, for some programs and locations, a substantial portion of the program may be required to be completed online. DeVry’s academic catalog, available via 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. ©2018 DeVry Educational Development Corp. All rights reserved. Version 11/14/18.