Bachelor’s Degree Program
SOFTWARE DEVELOPMENT

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
With this program, you’ll not only be armed with the Tech Core experience, but you’ll also be exposed to a variety of concepts that can help guide your specialization choice in Big Data and Analytics, Software Design and Programming, and Web and Mobile Application Development.

Is This Program for You?
Interested in a career in software development but not sure where to focus? With this program, you’ll be become familiarized with methods for improving software design and application product development to help guide your degree specialization choice.

CAREER OPPORTUNITIES

Graduates of DeVry’s Software Development degree program may consider, but are not limited to, the following careers:

• Software Application Developer
• Software Systems 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
• Design web distributed systems
• Develop applications
• Analyze and design software systems
• Product life cycle management

QUICK FACTS

THE SMART WAY TO BE UNDECIDED
With our undecided model, you’ll be exposed to three different specializations and be better armed to choose your path.1

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 Must declare a specialization by 30 credit hours for associate degree program and 60 credit hours for bachelor’s degree program.
### Essentials

**Communication Skills**
- ENGL112 Composition
- ENGL135 Advanced Composition
- ENGL216 Technical Writing
- SPC275 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
- SOCS325 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
- COLL148 Critical Thinking and Problem-Solving

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### 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
- NETW190 Fundamentals of Information Technology and Networking I
- NETW200 Fundamentals of Information Technology and Networking II
- SEC285 Fundamentals of Information Security

**Humanities**
- ETHC232 Ethical and Legal Issues in the Professions

**Social Sciences**
- ECON312 Principles of Economics

<table>
<thead>
<tr>
<th>Specialization</th>
<th>Credit Hours</th>
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<tr>
<td>Database Systems and Programming</td>
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<tr>
<td>Information Systems and Programming</td>
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<tr>
<td>Application Development</td>
<td>21</td>
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<tr>
<td>Senior Project</td>
<td>12</td>
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</tbody>
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### Program

**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

**Senior Project**
- 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

Students who have not chosen an area of specialization may begin the program in “Undecided” status; however, they must select a specialization by the time they have earned 60 semester credit hours toward their degree.

Available specializations are:
- Software Design and Programming (SDP)
- Big Data and Analytics (BDA)
- Web and Mobile Application Development (WAD)