SOFTWARE DEVELOPMENT

Specialization: Software Design and 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

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
- Mobile App 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

120
CREDIT HOURS
minimum credit hours required for graduation

25%
GROWTH
nationally from 2022–2032 for Employment of Software Developers, Quality Assurance Analysts and Testers[1]

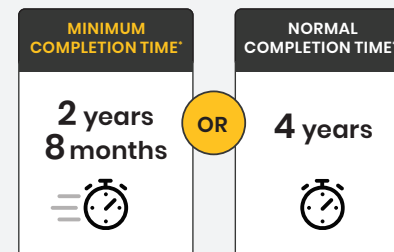**SKILLS FOCUSED**

CERTIFICATION EXAM REIMBURSEMENT

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

- CompTIA Cloud+
- CompTIA Network+
- CompTIA Security+
- CompTIA Linux+
- CompTIA Project+

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*		NORMAL COMPLETION TIME**
2 years 8 months	OR	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 12-18 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 12-18 credit hours per semester

[1] https://www.bls.gov/ooh/computer-and-information-technology/software-developers.htm. Growth projected on a national level. Local growth may vary. BLS projections are not specific to DeVry University students or graduates and may include earners at all stages of their career and not just entry level.

DeVry University

Software Development | Software Design and Programming

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
PHYS204	Applied Physics with Lab
TECH221	Data-Driven Decision -Making

PERSONAL AND PROFESSIONAL DEVELOPMENT

CARD405	Career Development
COLL148	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
CEIS114	Introduction to Digital Devices
NETW191	Fundamentals of Information Technology and Networking
NETW212	Introduction to Cloud Computing
SEC285	Fundamentals of Information Security

PROGRAM

37 CREDIT HOURS

INFORMATION SYSTEMS AND PROGRAMMING

CEIS150	Programming with Objects
CEIS209	Intermediate Programming
CEIS236	Database Systems and Programming Fundamentals
CIS355A	Business Application Programming with Lab

ANALYSIS AND DESIGN

BIAM110	Introduction to Business Analytics
CIS313	AI-Driven Business Application Coding
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

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 highlight relevant topics to help empower you to promote an inclusive workplace.

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

Demonstrate Skills at Every Step

BACHELOR'S

ASSOCIATE

CERTIFICATE
22 CREDIT HOURS

60 CREDIT HOURS

120 CREDIT HOURS

EMBEDDED PROGRAMS

Ready to earn two additional credentials with our exclusive 3-in-1 design? Courses in our Programming Essentials certificate and Information Technology and Networking associate degree are embedded within our online Software Design program. Allowing you to earn a certificate and an associate degree on the way to your bachelor's degree.

DeVry University