

SOFTWARE DEVELOPMENT

Specialization: Big Data and Analytics



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

In this specialization, you'll gain big data and analytic software development skills that address the complexity of examining large and varied data sets as well as uncover hidden patterns in information. You'll understand how predictive analytic measures and machine learning tools are applied to help drive quick decision-making in industry.

IS THIS PROGRAM FOR YOU?

Interested in a career in software development and helping business and society tackle problems requiring analysis of large volumes of data, then this program focused on big data and analytics may be a good fit for you.

CAREER OPPORTUNITIES

Graduates of DeVry's Software Development degree program with a specialization in Big Data and Analytics may consider, but are not limited to, the following careers:

- Data Analyst
- Database Developer
- Data Modeler
- Data Scientist
- Business Intelligence Analyst
- Database Manager
- Data Architect
- Data Warehouse Manager

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

- Acquire, retrieve and store data
- Mine and analyze data
- Use advanced techniques to analyze data
- Program and manage large data systems

QUICK FACTS

120
CREDIT HOURS
minimum credit hours
required for graduation

32%
GROWTH
nationally from 2018-2028
for Employment of
Information Security
Analysts¹

2 + 8
YEARS MONTHS
minimum length to graduation²

**TWO
IN
ONE**

2-IN-1

Earn an extra credential with our unique 2-in-1 design. All courses in our Information Technology & Networking Associate degree are embedded within this program. So you can earn an associate degree on the way to your bachelor's.

IoT KIT

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.

**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.

¹ <https://www.bls.gov/ooh/computer-and-information-technology/information-security-analysts.htm>. Data reflects a national projected percentage change in employment from 2018-2028 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>.

ESSENTIALS

50
CREDIT HOURS

COMMUNICATION SKILLS

- ENGL112 Composition
- ENGL135 Advanced Composition
- ENGL216 Technical Writing
- SPCH275 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

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

PROGRAM

38
CREDIT HOURS

INFORMATION SYSTEMS AND PROGRAMMING

- CEIS236 Database Systems and Programming Fundamentals
- CEIS312 Introduction to Artificial Intelligence and Machine Learning
- 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

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

12
CREDIT HOURS

BIG DATA AND ANALYTICS

- CEIS330 Strategies for Data Acquisition, Storage and Retrieval
- CEIS340 Database Management
- CEIS480 Data Mining and Analytics
- CEIS485 Data Interpretation and Statistical Analysis

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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), 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. ©2019 DeVry Educational Development Corp. All rights reserved. Version 12/9/19

