

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

2 + 8
YEARS MONTHS
minimum length to graduation¹

**THREE
IN
ONE**

3-IN-1

Earn two extra credentials with our unique 3-in-1 design. All courses in our Programming Essentials Certificate and Information Technology & Networking associate degree with a specialization in Information Systems and Programming are embedded within this program. So you can earn a certificate and an associate degree on the way to your bachelor's.

**IoT
PROJECTS**

WORK WITH IOT TECHNOLOGIES & SYSTEMS

Immerse yourself in the Internet of Things (IoT) world and obtain hands-on experience with IoT, cloud, software and security technologies and 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.

**DIVERSITY,
EQUITY &
INCLUSION**

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

¹ Not including breaks. Assumes year-round, full-time enrollment. Additional program information may be found at <https://www.devry.edu/online-programs.html>.

Software Development | Big Data and Analytics

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 ☼
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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
MATH221	Statistics for Decision-Making
MATH234	Discrete Math in Information Technology
PHYS204	Applied Physics with Lab

PERSONAL AND PROFESSIONAL DEVELOPMENT

CARD405	Career Development
COLL148	Critical Thinking and Problem-Solving

Students who complete CARD415, instead of CARD405, apply CARD415 to fulfill this requirement.

☼ This icon indicates Diversity, Equity & Inclusion Courses

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
NETW211	Fundamentals of 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
CEIS310	Process Improvement with Machine Learning
CEIS312	Introduction to Artificial Intelligence

CAREER PREPARATION

CEIS299	Careers and Technology
CEIS499	Preparation for the Profession
MGMT404	Project Management
TECH460	Senior Project

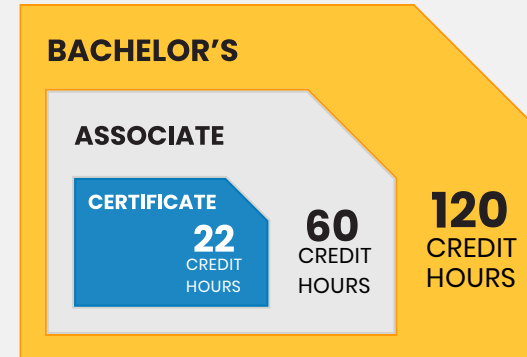
SPECIALIZED

13
CREDIT HOURS

BIG DATA AND ANALYTICS

BIAM300	Managerial Applications of Business Analytics
CEIS340	Database Management
CEIS480	Data Mining and Analytics
CEIS485	Data Interpretation and Statistical Analysis

Demonstrate Skills at Every Step



EMBEDDED PROGRAMS

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