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
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 graduation

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.

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.

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.

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.
Bachelor's Degree Program | Tech - Software and Information Systems

Software Development | Big Data and Analytics

ESSENTIALS

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
SOC185 Culture and Society
Select one
SOC325 Environmental Sociology
SOC350 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

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

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

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

ASSOCIATE

BACHELOR'S

CERTIFICATE

ENLIGHTENED

EMBEDDED PROGRAMS

Our exclusive 3-in-1 design has our Programming Essentials and Information Technology and Networking associate degree embedded in this degree program. So you can earn a certificate and an associate degree on the way to your bachelor's degree.