

COMPUTER INFORMATION SYSTEMS

Specialization: Database Management



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

Learn protocols and techniques necessary to develop and maintain a database management system. You'll also learn about different databases work from the perspective of security, performance, availability and cost and how a variety of databases can be managed together.

IS THIS PROGRAM FOR YOU?

Want to pursue a career in computer information systems and focus on big data? In this program, you'll focus on databases, database administration, and data privacy and security.

CAREER OPPORTUNITIES

Graduates of DeVry's [Computer Information Systems degree program with a Specialization in Database Management](#) may consider, but are not limited to, the following careers:

- Computer Programmer
- Database Analyst
- Computer Systems Analyst
- Data Security Administrator
- Database Administrator

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

- Use advanced programming techniques
- Develop applications
- Analyze and design software systems
- Develop web-based interfaces and designs

SPECIALIZED

- Program and manage large data systems
- Manipulate, visualize and present data, as well as create and refine data reports and dashboards.
- Apply artificial intelligence, machine learning and predictive analytic tools to data analysis and modeling are covered.
- Manage and secure data assets
- Evaluate technologies and processes that are important for data privacy and security control.

QUICK FACTS

124
CREDIT HOURS
minimum credit hours required for graduation

9%
GROWTH
nationally from 2023-2033 for Employment of Database Administrators and Architects¹



SKILL FOCUSED CURRICULUM

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

- CompTIA Linux+
- CompTIA Network+
- CompTIA Cloud Essentials+
- PCEP Certified Entry-Level Python Programmer
- CompTIA Security+
- CompTIA Project+
- CompTIA DataSys+



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.

ACCELERATE ON YOUR SCHEDULE



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.

^{*}Minimum completion time does not include breaks and assumes 3 semesters of year-round, full-time enrollment in 12-19 credit hours a semester per 12-month period.

^{**}Normal completion time includes breaks and assumes 2 semesters of enrollment in 12-19 credit hours per semester per 12-month-period.

¹<https://www.bls.gov/ooh/computer-and-information-technology/database-administrators.htm>. Growth projected on a national level. Local growth will vary by location. 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.

Computer Information Systems | Database Management

ESSENTIALS

47
CREDIT HOURS

COMMUNICATION SKILLS¹

ENGL112 ²	Composition
ENGL135	Advanced Composition
ENGL216	Technical Writing
SPCH275	Public Speaking

HUMANITIES

LAS432	Technology, Society, and Culture
ETHC232	Ethical and Legal Issues in the Professions

SOCIAL SCIENCES

ECON312	Principles of Economics
SOCS185	Culture and Society
SOCS325 ³	Environmental Sociology

MATHEMATICS AND NATURAL SCIENCES

MATH114	Algebra for College Students
TECH204	Everyday Physics
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 System Security

PROGRAM

40
CREDIT HOURS

INFORMATION SYSTEMS AND PROGRAMMING

CEIS150	Programming Objects
CEIS209	Intermediate Programming
CEIS236	Database Systems and Programming Fundamentals
CIS313	AI-Driven Business Application Coding
CIS355A	Business Application Programming with Lab

APPLICATION DEVELOPMENT

CIS363B	Web Interface Design with Lab
CIS407A	Web Application Development with Lab
WBG310	Interactive Web Page Scripting with Lab

CAREER PREPARATION

CEIS298	Introduction to Technical Project Management
CEIS499	Preparation for the Profession
MGMT404	Project Management
TECH460	Senior Project

¹14 for students enrolled at a New Jersey location

²Students enrolled at a New Jersey location take ENGL108 in lieu of this course.

³Students enrolled at a Nevada location must take POLI332 in lieu of this requirement.

Students enrolled at a New Jersey location must take an additional six semester-credit hours of general education coursework from among the following course areas: communication skills, humanities, social sciences, mathematics and natural sciences. Courses selected in humanities or social sciences should be upper-division coursework (DeVry courses numbered 300-499).

SPECIALIZED

16
CREDIT HOURS

DATABASE MANAGEMENT

CEIS340	Database Management
CIS303	Data Visualization and Presentation
CIS306	AI, Machine Learning and Data Science
SEC302	Data Administration and Security
SEC305	Cybersecurity and Data Privacy

Demonstrate Skills at Every Step

BACHELOR'S

ASSOCIATE

CERTIFICATE
22
CREDIT HOURS

60
CREDIT HOURS

124
CREDIT HOURS

EMBEDDED PROGRAMS

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

*The figures displayed represent the minimum credit hours required for graduation. Additional coursework may be necessary to complete program requirements. Future programmatic changes could impact the ability to earn additional credentials en route to an eligible degree program. Refer to the academic catalog for details.

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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. The University's 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: 1400 Crystal Dr., Ste. 120, Arlington, VA 22202. DeVry University is authorized for operation as a postsecondary educational institution by the Tennessee Higher Education Commission, www.tn.gov/thec. Lisle Campus: 4225 Naperville Rd., Ste. 400, Lisle, IL 60532. Unresolved complaints may be reported to the Illinois Board of Higher Education through the online complaint system <https://complaints.ibhe.org/> or by mail to 1 N. Old State Capitol Plaza, Ste. 333, Springfield, IL 62701-1377. Program availability varies by location. In site-based programs, students will be required to take a substantial amount of coursework online to complete their program. ©2025 DeVry Educational Development Corp. All rights reserved. Version 3/2025