COLLEGE OF ENGINEERING & INFORMATION SCIENCES

Bachelor's Degree Program
COMPUTER INFORMATION SYSTEMS
Specialization: Web Development and Administration

ABOUT THIS DEGREE PROGRAM

If you love technology, then you’re one of the lucky ones: you can build the skills you need to do what you love in a variety of industries. And the Computer Information Systems program at DeVry University is a great place to start.

In our Computer Information Systems program, you can learn programming languages like C++, C# and Java, giving you the hands-on experience and skills for a career in the technology field. You can learn to write programs, update and expand existing programs, debug programs, and create and test code in an industry standard integrated development environment. Best of all, you can learn by doing: developing, coding, implementing, and testing software and computer programs for a variety of real-world applications.

DeVry’s Computer Information Systems degree program allows you to select a specialization that will focus your education on your specific personal and professional goals, including:

• Computer Forensics
• Cyber Security Programming
• Database Management
• Information Systems Security
• Software Programming
• Web Development and Administration
• Web Game Programming

GENERAL EDUCATION COURSEWORK

Communication Skills
ENGL112 Composition
ENGL138 Advanced Composition
ENGL216 Technical Writing
SPCH275 Public Speaking

Humanities
HUMAN303 Introduction to the Humanities
ETHC445 Principles of Ethics
LAS432 Technology, Society, and Culture

Social Sciences
ECON312 Principles of Economics
SOCS185 Culture and Society
SOCS325 Environmental Sociology

Mathematics and Natural Sciences
MATH101 Algebra for College Students
MATH102 Statistics for Decision-Making
SCI228 Nutrition, Health and Wellness with Lab

Personal and Professional Development
CARD405 Career Development
COLL148 Critical Thinking and Problem-Solving

Business
BUSN115 Introduction to Business and Technology
MGMT404 Project Management

Through our TechPath approach, we’ve put technology at the core of our programs in business, tech and health – including this program. Every TechPath class you take revolves around a unique learning rubric developed at DeVry. We call it People-Process-Data-Devices or P2D2. You’ll gain real skills in collaboration, be able to adapt to new structures, and be comfortable working with data and a wide spectrum of tech-forward tools. P2D2 is a key component of what makes TechPath a smart, new way of getting the knowledge you need to be ready to hit the ground running in the way successful companies work today.

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.

Courses in blue are part of the DeVry Tech Path

Listed above are sets of CIS courses, ending in A, B, or C that differ principally in the language/platform used to explore course concepts.
ABOUT THIS SPECIALIZATION

DeVry University's bachelor's degree program in Computer Information Systems can prepare you with a solid foundation in technical software and programming skills. Our specialization in Web Development and Administration can further focus your studies to align with your personal interests and professional goals.

Web developers work on the technical structure, as well as the design of websites. They create wireframes and site architectures based on user needs and use or write software to support the site's functions. Web developers build applications for all types of websites allowing users to compare and contrast information.

Our Web Development and Administration specialization can help you strengthen your planning, problem-solving, organization and programming skills. As a student, you can learn about specialized site functions including e-commerce, ratings and reviews, connecting with social networks, and more. You can study how to uncover user needs in order to create logical navigation systems. As a graduate, you may work on either front-end operations (those that the user can see) or back-end functionality (those that support the operations of the site) or both.

Graduates of DeVry University's Computer Information Systems degree program with a specialization in Web Development and Administration may consider careers including, but not limited to, the following:

- Applications Manager¹
- Front-end and Back-end Developer
- Web Application Developer
- Web Designer
- Web Master²

¹Employment in this occupation may require years of relevant experience.

WEB DEVELOPMENT AND ADMINISTRATION

SPECIALIZATION:

E-COMMERCE — Gain knowledge of a broad spectrum of e-commerce principles, models and practices. Explore Internet marketing, retailing, payment and order fulfillment. Learn about various e-commerce models such as business-to-business (B2B) and consumer-to-consumer (C2C).

WEB ARCHITECTURE — Study web architecture and connectivity. Understand Internet protocols such as transmission control protocol/internet protocol (TCP/IP), domain name server (DNS), simple mail transfer protocol (SMTP), hypertext transfer protocol (HTTP) and file transfer protocol (FTP). Dissect the design of an Internet or corporate intranet infrastructure to meet specific needs.

ADVANCED WEB APPLICATION DEVELOPMENT — Gain knowledge of the basics of design, coding and scripting, as well as database connectivity for web-based applications.

WEB DEVELOPMENT — Design, build or maintain websites, using authoring or scripting languages, content creation tools, management tools and digital media.

DATABASE INFRASTRUCTURE — Learn to establish the database and infrastructure of a site.

WEB SECURITY — Incorporate security measures to safeguard sites and end users' privacy.

INNOVATION — Implement creativity and alternative thinking to develop new ideas and solutions to work-related problems.

LOGIC AND DESIGN — Gain knowledge of the basics of programming logic, as well as algorithm design and development, including constants, variables, expressions, arrays, files and control structures for sequential, iterative and decision processing. Design and document program specifications using tools such as flowcharts, structure charts and pseudocode.

STRUCTURED ANALYSIS AND DESIGN — Explore the systems analysis and design process using information systems methodologies and techniques to analyze business activities and solve problems. Identify, define and document business problems, and then develop information system models to solve them.

INTERACTING WITH COMPUTERS — Use computers and computer systems to program hardware, write software, set up functions, enter data or process information.

KNOWLEDGE AND SKILLS

PROGRAM-SPECIFIC COURSEWORK

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>Advanced Web Application Development</td>
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<td>Web Development and Administration</td>
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<td>SEC370 Web Security</td>
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<td>WEB320 Principles of E-Commerce</td>
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<td>WEB375 Web Architecture with Lab</td>
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<td>WEB460 Advanced Web Application Development with Lab</td>
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For comprehensive consumer information, visit devry.edu/studentconsumerinfo.

Important information about the education debt, earnings and completion rates of students who attended this program can be found at devry.edu/bcis-ge.

For additional program information, visit devry.edu/bcis.

In New York, DeVry University operates as DeVry College of New York.


DID YOU KNOW?

DeVry University and Adobe® Systems Incorporated have partnered to bring the Computer Information Systems degree program with a specialization in Web Development and Administration, innovative learning via Adobe’s industry-leading design and interactive media software applications. DeVry University’s partnership with Adobe® Systems Incorporated provides anytime/anywhere accessibility to these software programs, because the power of creativity is more than 9 to 5!