



Bachelor's Degree Program

COMPUTER INFORMATION SYSTEMS

Specialization: **Web Game Programming**

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

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.

GENERAL EDUCATION COURSEWORK

Communication Skills

ENGL112¹	Composition
ENGL135	Advanced Composition
ENGL216	Technical Writing
SPCH275	Public Speaking

Humanities

HUMN303	Introduction to the Humanities
ETHC445	Principles of Ethics
LAS432	Technology, Society, and Culture

Social Sciences

ECON312	Principles of Economics
SOCS185	Culture and Society
SOCS325²	Environmental Sociology

Mathematics and Natural Sciences

MATH114	Algebra for College Students
MATH221	Statistics for Decision-Making
SCI228³	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

¹Students enrolled at a New Jersey location take ENGL108 in lieu of this course.

²Students enrolled at a Nevada location must take POLI332 in lieu of this requirement.

³Students enrolled at a New Jersey location may take SCI200 to fulfill this requirement.

CORE-DEGREE COURSEWORK

Computer Systems Concepts

CEIS100	Introduction to Engineering Technology and Information Sciences
CIS115	Logic and Design
CIS206	Architecture and Operating Systems with Lab
SEC280	Principles of Information Systems Security

Networking – one of:

NETW202	Introduction to Networking with Lab
NETW203	Cisco Networking Academy – Introduction to Networking with Lab

Programming and Database Fundamentals

CIS170C	Programming with Lab
CIS247C	Object-Oriented Programming with Lab
CIS336	Introduction to Database with Lab

Computer Information Systems Foundations

ACCT301	Essentials of Accounting
CIS321	Structured Analysis and Design
CIS339	Object-Oriented Analysis and Design
CIS355A	Business Application Programming with Lab
CIS363B	Web Interface Design with Lab
CIS407A	Web Application Development with Lab

Senior Project

CIS474	Computer Information Systems Senior Project I
CIS477	Computer Information Systems Senior Project II

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



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 Master¹

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

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. DeVry University is accredited by The Higher Learning Commission (HLC), www.hlcommission.org. 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 by the THEC, www.tn.gov/thec Nashville Campus - 3343 Perimeter Hill Dr., Nashville, TN 37211. To report unresolved complaints to the Illinois Board of Higher Education, visit their webpage at <http://complaints.ibhe.org/> or by mail to the Illinois Board of Higher Education, 1 N. Old State Capitol Plaza, Suite 333, Springfield, IL 62701-1377. Program availability varies by location. ©2016 DeVry Educational Development Corp. All rights reserved. Version 07/03/17

KNOWLEDGE AND SKILLS

INTERACTIVE WEB PAGE SCRIPTING — Use scripting language to design and script basic interactive web page components and web-based games.

PROGRAMMING MULTIMEDIA FOR THE WEB — Apply multimedia authoring tools and techniques to create web-based games and dynamic web pages. Integrate and control multimedia assets such as movie clips, sound effects, images and animations.

GAME DEVELOPMENT — Use an object-oriented game engine with libraries; apply game design principles to develop sample games, taking into account technical considerations and industry best practices.

DYNAMIC WEB SITE DEVELOPMENT AND DATABASE INTEGRATION — Explore advanced techniques to design and develop dynamic websites through use of cascading style sheets (CSSs), integration of databases, server-side scripting and large site management.

MULTIPLAYER ONLINE GAME DEVELOPMENT — Explore design, development and play in multiplayer online games. Study how to install, configure and maintain game server software, and deploy a simple multimedia game using the server.

CREATIVE THINKING — Develop, design or create new applications, ideas, relationships, systems or products, including artistic contributions.

COMMUNICATIONS AND MEDIA — Gain knowledge of media production, communication and dissemination techniques and methods. Study alternative ways to inform and entertain via written, oral and visual media.

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.

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

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.

PROGRAM-SPECIFIC COURSEWORK

Web Game Programming

- WBG340** Programming Multimedia for the Web with Lab
- WBG370** Game Development with Lab
- WBG410** Dynamic Website Development and Database Integration with Lab
- WBG450** Multiplayer Online Game Development with Lab

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!

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