



Bachelor's Degree Program

COMPUTER INFORMATION SYSTEMS

Specialization: **Information Systems Security**

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.

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.

GENERAL EDUCATION COURSEWORK

Communication Skills

| | |
|----------------------------|----------------------|
| ENGL112¹ | Composition |
| ENGL135 | Advanced Composition |
| ENGL216 | Technical Writing |
| SPCH275 | Public Speaking |

Humanities

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

Social Sciences

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|----------------------------|-------------------------|
| ECON312 | Principles of Economics |
| SOCS185 | Culture and Society |
| SOCS325² | Environmental Sociology |

Mathematics and Natural Sciences

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|---------------------------|---|
| MATH114 | Algebra for College Students |
| MATH221 | Statistics for Decision-Making |
| SCI228³ | Nutrition, Health and Wellness with Lab |

Personal and Professional Development

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|----------------|---------------------------------------|
| CARD405 | Career Development |
| COLL148 | Critical Thinking and Problem-Solving |

Business

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|----------------|---|
| 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:

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

Programming and Database Fundamentals

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

Computer Information Systems Foundations

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|----------------|---|
| 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

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

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.



SPECIALIZATION: INFORMATION SYSTEMS SECURITY

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 Information Systems Security can further focus your studies to align with your personal interests and professional goals.

As long as computers and electronic systems are used to house valuable information, there will be those who attempt to breach those systems and use the information to their own advantage. Information security specialists design the systems, procedures and policies that help avoid data and identity theft, computer viruses and other electronic security breaches.

DeVry University's Information Systems Security specialization can teach you how to develop and implement various methods of securing data and computer systems. You can learn to recognize and assess threats, align policies and procedures with applicable laws and regulations, and ensure that data is backed up in the event of an emergency.

More than half of all cyber security positions require at least one professional certification such as the Systems Security Certified Practitioner (SSCP) certification.¹ The SSCP designation certifies that you have technical skills and practical security knowledge in hands-on operational IT roles.² As a student enrolled in this specialization, you can take advantage of our Certification Prep courses offered at no tuition charge. Better still, eligible students who register for and complete the exams may be reimbursed for one exam sitting.³

Topics in this specialization include information system auditing, web security, privacy and ethical issues, and business continuity.

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

- Computer Security Specialist
- Information Security Specialist/Analyst
- Data Security Administrator

¹Study by Burning Glass Technologies, "Job Market Intelligence: Report on the Growth of Cybersecurity Jobs," 2014, pg. 8

²<https://www.isc2.org/sscp/default.aspx>

³The SSCP designation requires 1 year of work experience. Without the work experience, those that pass the exam earn the Associate of (ISC)2

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-gs. 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/thecc 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 08/14/17

KNOWLEDGE AND SKILLS

BUSINESS CONTINUITY — Focus on preparing for, reacting to, and recovering from events that threaten the security of information and information resources, or that threaten to disrupt critical business functions.

DATA PRIVACY AND SECURITY — Explore the legal, ethical and security issues involving data and information assets that organizations must address to ensure operational continuity, as well as compliance with standards, policies and laws.

WEB SECURITY — Examine issues involved in protecting web-based applications from external threats while safeguarding customer privacy and accessibility.

INFORMATION SYSTEMS SECURITY PLANNING AND AUDIT — Study the kind of risk factor analysis that must be performed in order to design a flexible and comprehensive security plan.

DETERMINING COMPLIANCE WITH STANDARDS — Use relevant information and individual judgment to determine whether events or processes comply with laws, regulation or standards.

PUBLIC SAFETY AND SECURITY — Gain knowledge of relevant equipment, policies, procedures and strategies to promote effective local, state and national security for the protection of people, data, property and institutions.

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.

COMPLEX PROBLEM SOLVING — Identify complex problems and review related information to develop and evaluate options and implement solutions.

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

PROGRAM-SPECIFIC COURSEWORK

Information Systems Security

- SEC340** Business Continuity
- SEC360** Data Privacy and Security
- SEC370** Web Security
- SEC440** Information Systems Security Planning and Audit
- CERT402** Systems Security Certified Practitioner Certification Preparation
This optional certification exam prep course may be taken in addition to the courses above.

DID YOU KNOW?

In cooperation with Microsoft®, DeVry University students benefit from a catalog of MSDN® Academic Alliance tools to support gaining hands-on experience using the technology critical to their career path. As a student enrolled in DeVry University's technology-oriented curricula, you will be able to download the software relevant to your classes at no additional cost.

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