2026-27 Academic Year

COMPUTER INFORMATION SYSTEMS >
NETWORKING AND CYBERSECURITY

The demand for IT professionals is high with our dependence upon technology in the workplace. Computer networks make up the backbone of businesses, requiring connectivity across many platforms. The Networking and Cybersecurity degree program at Wayne State will prepare you for jobs in the IT sector like network administration and systems administration. In the Networking and Cybersecurity concentration, you will learn principles and concepts of computing along with organizational and business concepts. You'll gain practical skills in the areas of programming, networking, systems development, hardware, operating systems, and databases. Along with specialized knowledge in computer networking and cybersecurity, you will discover the types and range of career opportunities in the field. You'll also gain an understanding of the contexts and environments surrounding the development and uses of information systems, and when you graduate, you'll be ready for a career in information technology and computer networking.

fast facts

Credit hours: 57

Students must also take 30 credit hours of General Studies courses. A total of 120 credit hours are needed to graduate from WSC. Additional majors or minors can be added to help meet graduation requirements.

Degree options: B.A. or B.S.

Department: Computer Technology and Information Systems

School: Business and Technology

Popular pairings: Business Administration, Computer Science, Criminal Justice, Systems Engineering

focus on results

Skills Learned

- Network and IT security
- Computer network setup and design
- Computer troubleshooting
- Network and server technologies
- Analysis and design of computer information systems
- Database design and development using SQL
- Computer programming
- Business management and leadership
- Legal environment of business
- Time management and organization

Possible Careers

- Network specialist
- Network architect
- Network administrator
- Systems administrator
- Network security consultant
- IT administrator
- Server engineer
- IT support specialist
- Computer repair technician
- Computer forensics specialist

Types of Employers

- Government / federal agencies
- Hospitals and medical clinics
- Businesses and corporations
- Banks and financial institutions
- Schools, colleges, and universities
- Communications companies
- Data warehouse companies
- Information technology companies

outside the classroom

Visit www.wsc.edu/clubs to learn more about clubs and organizations on campus.

Activities / Opportunities

- Career Scholars Program
- Programming and robotics competitions
- Workshops and presentations
- Peer tutoring and mentoring
- Service-Learning
- Study Abroad

Clubs / Organizations

- Association for Computing Machinery (ACM)
- SkillsUSA
- Upsilon Pi Epsilon (International Computing Honorary)

Courses and outcomes

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The following courses are required for the program of study described on this sheet. Every effort is made to ensure this information is current, but please be aware that some content may have changed. To develop a plan for registering and taking these courses, please consult the current academic catalog and your advisor.

Program courses

Computer Information Systems Core Courses

CIS 132 Principles of Computing and Information Systems 3
CIS 171 Networking I 3
CIS 360 Software Engineering I 3
CIS 361 Software Engineering II 3
CIS 366 Introduction to Database 3
CIS 372 Computer Hardware and Operating Systems 3
CIS 430 Management Information Systems 3
CIS 480 Seminar in Computer Information Systems 3
CSC 150 Programming Fundamentals I 3
CSC 165 Web Development I 3
CSC 302 Fundamentals of Artificial Intelligence 3
CSC 380 Operating Systems 3

Networking and Cybersecurity Concentration Courses

CIS 271 Networking II 3
CIS 272 Principles of Cybersecurity 3
CIS 371 Networking III 3
CIS 471 Networking IV 3
CIS 479 Technology Planning, Implementation, and Management 3
CSC 365 Python for Automation and Scripting 3
Elective (choose one from the following) 3
CSC 307 Foundations of Cloud Computing (3)
CSC 450 Infrastructure and Servers (3)

Student learning outcomes

1. Apply the foundational concepts of computer information systems
2. Work in team settings found in computer information systems contexts
3. Communicate in professional computer information systems contexts
4. Establish a plan for maintaining professional relevance in computer information systems
5. Apply an appropriate ethical framework to a computer information systems ethical dilemma

computer information systems faculty

Visit www.wsc.edu/computer-technology-information-systems-department to learn more about the Department of Computer Technology and Information Systems.

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