

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

Hours:

57 hours for concentration
30 hours in general education

At least 120 hours are required for graduation from Wayne State College. You may add a second major, minor, or electives to help meet these requirements.

Degrees offered: B.A. or B.S.

Department: Computer Technology and Information Systems

School: Business and Technology

Internship: Encouraged but not required

Popular minors: Business Administration, Computer Science, Geospatial Technology

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

- Programming and robotics competitions
- Guest speaker events
- IT facility tours
- 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)

Sample program of study

2023-24 Academic Year

Every effort is made to ensure this information is current, but please be aware that some content may have changed. There is no substitute for developing a careful course registration plan in consultation with your advisor. The class sequence listed is suggested only. The final decision rests with the student and academic advisor.

Freshman - 1st semester

CIS 132 Principles of Computing and Information Systems.....	3
CSC 150 Programming Fundamentals I.....	3
CSC 165 Introduction to Web Development.....	3
General Studies	

Freshman - 2nd semester

BUS 142 Survey of Accounting.....	3
CSC 160 Programming Fundamentals II.....	3
MAT by advisement	
General Studies	

Sophomore - 1st semester

CIS 171 Networking I.....	3
General Studies	

Sophomore - 2nd semester

*BUS 208 Business Communications.....	3
CIS 271 Networking II.....	3
CIS 366 Intro to Database.....	3
General Studies	

Junior - 1st semester

CIS 352 Introduction to Enterprise Computing.....	3
CIS 360 Computer Information Systems: Analysis and Design.....	3
CIS 371 Networking III.....	3
CIS 372 Computer Hardware and Operating Systems.....	3
CSC 380 Operating Systems.....	3

Junior - 2nd semester

CIS 361 Software Engineering.....	3
CIS 471 Networking IV.....	3
Committee-approved electives.....	3
Electives	
General Studies	

Senior - 1st semester

*BUS 260 Management Theory and Practice.....	3
Committee-approved electives.....	3
Electives	
General Studies	

Senior - 2nd semester

CIS 479 Network Design and Administration.....	3
CIS 480 Seminar in Computer Information Systems.....	3
CSC 450 Server Security and Management.....	3

The CIS/CSC elective courses approved by the Computer Technology and Information Systems Department are:

BUS 408 Business Ethics.....	3
CIS 375 Intro to E-Commerce.....	3
CIS 430 Management Information Systems.....	3
CIS 466 Advanced Database.....	3
CIS 475 Topics in Computer Information Systems.....	3
CIS 477 Project Management.....	3
CSC 345 Computer Graphics.....	3
CSC 365 Scripting Languages.....	3
CSC 380 Advanced Operating Systems.....	3
CSC 450 Server Security and Management.....	3

*Courses may be taken either semester during the year indicated.

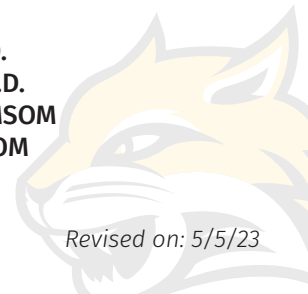
computer information systems faculty



Visit www.wsc.edu/ctis to learn more about the Department of Computer Technology and Information Systems.

Timothy P. Garvin, Ph.D.
Department Chair
Gardner Hall 206J
402-375-7545
tigarvi1@wsc.edu

Molly Curnyn, Ed.D.
Lori Nicholson, Ph.D.
Debbie Johnson, MSOM
Jeremy Wynia, MSOM



Revised on: 5/5/23