There is a market for people with software development, cybersecurity, networking, and computer support skills in organizations of all sizes. IT careers are available in every area of the economy.

Applications Development

Students learn . . .
• Coding in Java, C#, and COBOL
• Web development using HTML, JavaScript, JSP, ASP, and PHP
• Database design and SQL
• Mobile apps development
• Teaming and project development
• Techniques to integrate PC, Web and mainframe applications

These developers . . .
• Design and code applications using different computer platforms
• Document, test and implement code
• Develop and maintain websites
• Design and manage databases
• Develop Web front-end applications to interact with back-end systems
• Maintain existing computer applications

Cybersecurity

Students learn . . .
• Computer communications and network operating systems
• Cisco networking and security
• Attack methods and defense techniques
• Security software and devices

Security technicians . . .
• Configure and maintain secure networks and data systems
• Perform security auditing and penetration testing
• Respond to security incidents

Network Management

Students learn . . .
• Hardware installation
• Computer communications and network protocols
• Network operating systems
• Cisco networking
• Setup and use of virtual machines

Network managers . . .
• Research and recommend hardware and software purchases
• Set up, monitor and support network systems
• Troubleshoot computer and network problems

Computer Support

Students learn . . .
• Customer service skills
• Problem-solving techniques
• Hardware troubleshooting
• Software and operating systems
• Help desk structure and operation
• Basic networking

Support specialists . . .
• Handle customer requests and solve problems
• Install and support computer hardware and software
• Troubleshoot computer problems
• Prepare training materials

Top Career Options

• Information Systems Technician
• Applications Developer
• Cybersecurity Technician
• Network Manager
• Web Developer

Graduate Earnings

Recent graduates report an average starting wage of $23 per hour.

2019-20 Tuition/Fee Rate Per Credit Hour
Nebraska Resident $108
Out-of-state tuition/fee rate $129

Estimated Expenses
Tuition/Fees $7560
Books 3400
Special Fees 420
Tools/Supplies 50
Total: $10,960

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Program overview

The Applications Development focus trains students to design and code software applications on different computer platforms (PC, web, mainframe, and mobile). Courses train students to code Java and C# applications for PCs, develop basic iOS and Android apps for mobile devices, and work behind the scenes developing web sites using JavaScript, PHP, ASP, JSP, and SQL. Students also learn to use COBOL and DB2 in a mainframe programming environment.

Cybersecurity students complete hands-on training to meet the growing need for security professionals in IT. Students learn security practices, cyber defense techniques, and digital forensics related to the protection of today's networks and critical information systems.

In the Network Management focus, students set up, maintain, and manage computer networks in both a Windows and Linux environment. They learn to use PowerShell, set up virtual machines, and work with Cisco networking.

Computer Support students are trained to work as the main IT technician in a company or as a member of a team providing help desk and computer support. Students gain hands-on training in the setup, maintenance, troubleshooting, and support of computer hardware and software.

New students are accepted into the program in both the Fall and Spring semesters.

Face-to-face classroom courses are offered day and evening. Many, but not all, courses are available online. Students who are unable to attend day classes can complete all degree requirements taking a combination of evening and online courses.

Students attending full-time can complete the degree in two years. The program welcomes part-time students who choose to carry a lighter load and take longer to complete the degree.

Special program requirements

All students start into the program taking the same group of courses. While completing those courses, students can make a decision about which focus to pursue.

"Advisor approved INFO electives" can be any INFO course not listed as a requirement in the focus.

Prerequisite and co-requisite INFO and ELEC courses must be completed with a grade of “C” or higher to continue through the program.

General Education Requirements

See the General Education pages for a complete list.

GELO #1: Oral Communications (Choose ONE) 3.0
SPCH1100 Fundamentals of Human Communication 3.0
SPCH1110 Public Speaking 3.0
SPCH2810 Business & Professional Communication 3.0
GELO #2: Written Communications (Choose ONE) 3.0
ENGL1010 English Composition I 3.0
ENGL1110 English Business Communications 3.0
GELO #5: Analytical, Quantitative, and Scientific Reasoning (Choose ONE): 3.0
MATH1040 Business Math 3.0
MATH1050 Thinking Mathematically 3.0
MATH1100 Intermediate Algebra 3.0
A higher level MATH class can be taken based on math placement scores
GELO #6: Career and Life Skills 3.0
BSAD1010 Microsoft Applications I 3.0
GELO #3: Critical Thinking & Problem Solving 3.0
GELO #4: Global Awareness and Citizenship 15.0 hours

Applications Development Focus Requirements

Course # Course title Credit hrs.
INFO1151 Information Technology Fundamentals 3.0
INFO1171 PC Operating Systems 3.0
INFO1214 Programming Concepts 2.0
INFO1281 Networking Concepts 2.0
INFO1411 Advanced Database & SQL 3.0
INFO1414 Java 4.0
INFO1428 JCL & COBOL 4.0
INFO2453 JavaScript & jQuery 3.0
INFO2574 Advanced Programming Using Visual Basic 3.0
INFO2584 Mobile Device Programming 3.0

Required courses include the four courses in either PC & Web Option or Integrated Platforms Option:

PC & Web Option
INFO2411 Advanced Database & SQL 3.0
INFO2525 Web Server Scripting Using PHP 3.0
INFO2534 ASP.NET Using C# 3.0
INFO2644 PC & Web Capstone 4.0

Integrated Platforms Option
INFO2418 DB2 & SQL 3.0
INFO2514 Java Server Programming 3.0
INFO2528 Advanced COBOL 3.0
INFO2638 Integrated Platforms Capstone 4.0
Advisor approved INFO elective (minimum) 2.0
INFO2700 CIT Practicum OR OFFT2000 Employment Techniques 3.0

Cybersecurity Focus Requirements

INFO1151 Information Technology Fundamentals 3.0
INFO1171 PC Operating Systems 3.0
INFO1214 Programming Concepts 2.0
INFO1281 Networking Concepts 2.0
INFO1411 Advanced Database & SQL 3.0
INFO1491 Network Security Fundamentals 3.0
INFO1492 Linux Network Administration 4.0
INFO1494 Windows Server Administration 3.0
INFO2555 PowerShell Fundamentals 2.0
INFO2575 Virtualization Management 2.0
INFO2581 Network Security Systems 3.0
INFO2586 Security Operations & Ethics 2.0
INFO2596 Computer & Digital Forensics 2.0
INFO2691 Enterprise Security Capstone 3.0
ELEC2760 Routing & Switching Essentials 3.0
ELEC2900 CCNA Security 3.0
Advisor approved INFO elective (minimum) 2.0
INFO2700 CIT Practicum OR OFFT2000 Employment Techniques 3.0

Network Management Focus Requirements

INFO1151 Information Technology Fundamentals 3.0
INFO1171 PC Operating Systems 3.0
INFO1214 Programming Concepts 2.0
INFO1281 Networking Concepts 2.0
INFO1491 Network Security Fundamentals 3.0
INFO1492 Linux Network Administration 4.0
INFO1494 Windows Server Administration 3.0
INFO2555 PowerShell Fundamentals 2.0
INFO2575 Virtualization Management 2.0
INFO2595 Advanced Windows Server 2.0
INFO2697 Networking Capstone 3.0
ELEC2760 Introduction to Networks 3.0
ELEC2761 Routing & Switching Essentials 3.0
ELEC2865 Advanced Networking 4.5
Advisor approved INFO elective (minimum) 3.5
INFO2700 CIT Practicum OR OFFT2000 Employment Techniques 3.0

Computer Support Focus Requirements

INFO1151 Information Technology Fundamentals 3.0
INFO1171 PC Operating Systems 3.0
INFO1214 Programming Concepts 2.0
INFO1281 Networking Concepts 2.0
INFO1411 Advanced Database & SQL 3.0
INFO2473 Advanced Excel 1.5
INFO2495 Advanced Access 1.5
INFO2533 Support Techniques 3.0
INFO2535 Collaboration Tools 2.0
INFO2670 Computer Support Capstone 3.0
ELEC2760 Introduction to Networks 3.0
ELEC2761 Routing & Switching Essentials 3.0
Advisor approved INFO elective (minimum) 2.0
INFO2700 CIT Practicum OR OFFT2000 Employment Techniques 3.0

Total credits: 55.0 hours