



IT NETWORK SPECIALIST

Associate in Applied Science (AAS) Program Code: 10-150-2 Total Credits: 60

The IT Network Specialist program at Mid-State prepares students to administer and support personal computer and network environments. Graduates are able to install, troubleshoot, analyze, and repair networks, as well as maximize network efficiency and security. In this program you will develop skills in the design, installation, administration, and management of computer networks, including wide area networks (WAN) and virtualization technologies. You'll also apply concepts in hands-on projects through project proposals, presenting technical designs, project implementation, and more.

Estimated tuition and fees: mstc.edu/programcosts

ACADEMIC ADVISOR

To schedule an appointment with an academic advisor, call 715.422.5300. Academic advisors will travel to other campuses as necessary to accommodate student needs. For more information about advising, visit mstc.edu/advising.

NEW STUDENT CHECKLIST

Complete the following steps to prepare for your New Student Advising appointment with your academic advisor:

- ☐ Submit a Mid-State application at mstc.edu/apply.
- ☐ Send official transcripts to:
Mid-State Technical College
Student Services
1001 Centerpoint Drive
Stevens Point, WI 54481
- ☐ Complete the Free Application for Federal Student Aid (FAFSA) at fafsa.gov. Mid-State's Financial Aid team is available to assist with your FAFSA application and to answer your financial aid questions. Contact Financial Aid or schedule an appointment at mstc.edu/financial-aid.
- ☐ Set up student MyCampus account at mstc.edu/mycampus-assistance.
- ☐ Schedule a New Student Advising appointment at mstc.edu/advising.



mstc.edu • 888.575.6782 • TTY: 711



ADAMS CAMPUS
401 North Main
Adams, WI 53910

MARSHFIELD CAMPUS
2600 West 5th Street
Marshfield, WI 54449

**STEVENS POINT
DOWNTOWN CAMPUS**
1001 Centerpoint Drive
Stevens Point, WI 54481

WISCONSIN RAPIDS CAMPUS
500 32nd Street North
Wisconsin Rapids, WI 54494

CAREER PATHWAY • BEGIN AT ANY POINT



CREDIT FOR PRIOR LEARNING AND EXPERIENCE

CREDIT FOR PRIOR LEARNING AND EXPERIENCE

- Certifications and Licenses
- High School Credit
- Military Experience
- National/Standardized Exams
- Transfer Credit
- Work and Life Experience

Learn about Credit for Prior Learning at mstc.edu/cpl.

CERTIFICATE

COMMUNICATION ESSENTIALS

Certificate • 9 Credits

For more information and additional opportunities, visit mstc.edu/career-accelerator.

TECHNICAL DIPLOMA

IT USER SUPPORT TECHNICIAN

Technical Diploma • 24 Credits

Start Your Career

- Desktop Support Specialist
- Help Desk Technician
- Technical Support Specialist

ASSOCIATE IN APPLIED SCIENCE (AAS)

IT NETWORK SPECIALIST

Associate in Applied Science (AAS) • 60 Credits

Start Your Career

- Computer Network Support Specialist
- Hardware Support Specialist
- Network Administrator

BACHELOR'S DEGREE

BACHELOR'S DEGREE OPTIONS

For those interested in continuing their education, Mid-State offers transfer agreements with various four-year colleges and universities. For more information and additional opportunities, visit mstc.edu/transfer.

OTHER OPTIONS

RELATED PROGRAMS

- IT Cybersecurity Specialist
- IT Software Developer

Employers will expect you, as an IT Network Specialist graduate, to be able to:

SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
10150110	Networking I	3
10151105	Linux	3
10154102	IT Essentials	3
10801198	Speech -OR-	
10801196	Oral/Interpersonal Communication	3
10804135	Quantitative Reasoning	3

Term		15 credits
10150111	Networking II	3
10150120	Server Administration-Beginning	3
10150165	Network Server Scripting	3
10151110	Information Security 1	3
10152101	Intro to Programming	3

Term		15 credits
10150112	Networking III	3
10150121	Server Administration-Intermediate	3
10150130	Virtualization	3
10809103	Think Critically & Creatively	3
10809198	Intro to Psychology	3

Term		15 credits
10150142	Information Technology Internship -OR-	
10151162	Secure Software Applications	3
10150113	Networking IV	3
10150161	Advanced Networking Projects	3
10801195	Written Communication -OR-	
10801136	English Composition 1	3
10809166	Intro to Ethics: Theory & Application	3

Total Credits 60

This course has options available to receive credit for prior learning (CPL) or work experience. Visit the website at mstc.edu/cpl or contact your advisor for details.

Please Note:

- This curriculum sequence is only for student planning. Actual student schedules will vary depending on course availability.
- Program completion time may vary based on student scheduling and course availability. For details, go to mstc.edu/schedule.

SAMPLE PART-TIME CURRICULUM OPTION

Term		9 credits
10154102	IT Essentials	3
10150110	Networking I	3
10152101	Intro to Programming	3

Term		9 credits
10150111	Networking II	3
10151110	Information Security 1	3
10804135	Quantitative Reasoning	3

Term		6 credits
10151105	Linux	3
10801198	Speech -OR-	
10801196	Oral/Interpersonal Communication	3

Term		6 credits
10150120	Server Administration-Beginning	3
10150165	Network Server Scripting	3

Term		9 credits
10150112	Networking III	3
10150121	Server Administration-Intermediate	3
10809103	Think Critically & Creatively	3

Term		9 credits
10150142	Information Technology Internship -OR-	
10151162	Secure Software Applications	3
10801195	Written Communication -OR-	
10801136	English Composition 1	3
10809166	Intro to Ethics: Theory & Application	3

Term		6 credits
10150130	Virtualization	3
10809198	Intro to Psychology	3

Term		6 credits
10150113	Networking IV	3
10150161	Advanced Networking Projects	3

Total Credits 60

MULTIPLE MEASURES

Multiple Measures Writing (MMW): High school GPA of 2.6 and successful completion of 2.0 credits of high school writing courses with a "C" or better

Multiple Measures Math 1 (MMM_1): High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

Multiple Measures Science 1 (MMS_1): High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

Multiple Measures Reading (MMR): High school GPA of 2.6 and successful completion of 2.0 credits of high school literature courses with a "C" or better

Multiple Measures Math 2 (MMM_2): High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

Multiple Measures Science 2 (MMS_2): High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

Past high school and college transcripts are used in making course placement decisions.

COURSE DESCRIPTIONS

Advanced Networking Projects

101501613 credits

In this capstone course students complete projects that incorporate networking skills gained from previous terms. Students demonstrate those skills by creating a project proposal, presenting a technical design, and/or implementing a project based on specifications provided by the instructor.

Prerequisites: Networking III 10150112 and Virtualization 10150130

English Composition 1

108011363 credits

Learners develop and apply skills in all aspects of the writing process. Through a variety of learning activities and written documents, learners employ rhetorical strategies, plan, organize and revise content, apply critical reading strategies, locate and evaluate information, integrate and document sources, and apply standardized English language conventions.

Prerequisite: High School GPA of 2.6 and MMW or Accuplacer Writing of 262 or ACT English score of 20 or completion of College Reading and Writing 1 10831104 with a "C" or better

Information Security 1

101511103 credits

Introduces students to the fundamentals of information security. Topics include security terms and concepts, risk assessment, cryptography, monitoring and auditing, attacks and techniques, and the legal and ethical issues associated with information security. This course aligns with the CompTIA Security+ certificate. Students can take this certification exam after completing this course.

Corequisite: Networking 1 10150110

Information Technology Internship

101501423 credits

Integrates networking skill developed in classroom study with specific occupational experiences at local employment sites. Develops work behavior appropriate to the computer information systems environment. Students are responsible for securing placement at their own internship site prior to registering for this course.

Intro to Ethics: Theory & Application

108091663 credits

Provides a basic understanding of the theoretical foundations of ethical thought. Diverse ethical perspectives are used to analyze and compare relevant issues. Students critically evaluate individual, social, and/or professional standards of behavior, and apply a systemic decision-making process to these situations.

Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English

Intro to Programming

101521013 credits

Applies the basic concepts of computer programming having learners build Python applications, with an emphasis on problem solving, structured programming, debugging, and testing. Additional topics include: online software development resources, programming and documentation standards, variable lifetime/scope, data types, control structures (conditions and iterations) working within Microsoft Windows, and mathematical calculations.

Intro to Psychology

108091983 credits

This science of psychology course is a survey of multiple aspects of behavior and mental processes. It provides an overview of topics such as research methods, theoretical perspectives, learning, cognition, memory, motivation, emotions, personality, abnormal psychology, physiological factors, social influences, and development.

Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English

Introductory Statistics

108041893 credits

Students taking Introductory Statistics display data with graphs, describe distributions with numbers, perform correlation and regression analyses, and design experiments. They use probability and distributions to make predictions, estimate parameters, and test hypotheses. They draw inferences about relationships including ANOVA. Algebra knowledge and foundational skills in mathematics are important for success in this course.

Prerequisite: High School GPA of 2.6 and MMM_2 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better

IT Essentials

101541023 credits

An introductory course covering essential IT support and computer hardware skills. Students will learn to build, configure, secure, network, and troubleshoot PCs, along with an introduction to operating systems, basic networking concepts and configuration used in end devices, basic server functions, mobile devices, and printers—preparing them for entry-level IT roles.

Linux

101511053 credits

Covers introductory Linux topics, including operating system basics, system installation, file system management, file system administration, and basic commands. This course aligns with the CompTIA Linux+ certificate. Students can take this certification exam after completing this course.

Network Server Scripting

101501653 credits

Provides best practices and techniques in Linux and Windows shell and command line scripting using PowerShell and BASH.

Prerequisite: IT Essentials 10154102; Corequisites: Server Administration-Beginning 10150120 and Intro to Programming 10152101 or Networking 1 10150110

COURSE DESCRIPTIONS

Networking I

10150110.....3 credits

Introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. By the end of the course, participants will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. This course is the first of three courses that align with CCNA certification. Covers the objectives of the first CCNA exam.

Networking II

10150111.....3 credits

Describes the architecture, components, and operations of routers and switches in a small network. It focuses on small-to-medium business networks and includes wireless local area networks (WLANs) and security concepts. Students learn key switching and routing concepts. They can perform basic network configuration and troubleshooting, identify and mitigate LAN security threats, and configure and secure a basic WLAN. This course is the second of three courses that align with CCNA certification. Covers the objectives of the first CCNA exam but is not designed or intended to be a "test prep" course.

Prerequisites: Networking I 10150110 and IT Essentials 10154102

Networking III

10150112.....3 credits

This course covers wide area network (WAN) technologies and quality of service (QoS) mechanisms used for secure remote access. Students are introduced to network management tools and learn key concepts of software-defined networking, including controller-based architectures and how application programming interfaces (APIs) enable network automation. This course is the final course that aligns with the CCNA certification. The course covers the objectives of the second CCNA exam but is not designed or intended to be a "test prep" course.

Prerequisite: Networking II 10150111

Networking IV

10150113.....3 credits

Discusses the new and upcoming technologies and network services required by converged applications in complex networks. Students will learn how to provision and monitor services in the cloud and network based applications.

Prerequisites: Networking III 10150112 and Virtualization 10150130

Oral/Interpersonal Communication

10801196.....3 credits

Focuses on developing effective listening techniques and verbal and nonverbal communication skills through oral presentation, group activity, and other projects. The study of self, conflict, and cultural contexts will be explored, as well as their impact on communication.

Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English

Quantitative Reasoning

10804135.....3 credits

This course is intended to develop analytic reasoning and the ability to solve quantitative problems. Topics to be covered may include construction and interpretation of graphs; descriptive statistics; geometry and spatial visualizations; math of finance; functions and modeling; probability; and logic. Appropriate use of units and dimensions, estimates, mathematical notation, and available technology will be emphasized throughout the course.

Prerequisite: High School GPA of 2.6 and MMM_1 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better

Secure Software Applications

10151162.....3 credits

The Secure Software Applications course teaches students about the most common attacks against applications and how to defend against those attacks through secure coding practices and good security hygiene. The class focuses on the OWASP top 10, certificates, code scanning, SDLC Security automation and more.

Prerequisite: Intro to Programming 10152101

Server Administration-Beginning

10150120.....3 credits

Develops skill in the design, installation, administration, and management of computer networks. Topics include network design; installation and configuration of a commonly used network operating system; service packs and updated drivers; user accounts, groups, profiles, and policies; file system security; printer management; and application software installation, backup, and recovery.

Prerequisite: IT Essentials 10154102; Corequisite: Linux 10151105

Server Administration-Intermediate

10150121.....3 credits

This course provides an in-depth introduction to cloud computing, focusing on the principles and best practices for deploying, securing, and managing cloud environments. Students will explore key concepts such as virtualization, cloud infrastructure, security, automation, performance optimization, and disaster recovery. Through a combination of lectures, hands-on labs, and real-world case studies, students will develop the skills needed to evaluate cloud solutions, implement security controls, and ensure business continuity in modern IT environments.

Prerequisite: Server Administration-Beginning 10150120

Speech

10801198.....3 credits

Explores the fundamentals of effective oral presentation to small and large groups. Topic selection, audience analysis, methods of organization, research, structuring evidence and support, delivery techniques, and other essential elements of speaking successfully, including the listening process, form the basis of this course. Includes informative, persuasive, and occasion speech presentations.

Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 253 and Writing of 262 or ACT of 21 Reading/19 English or completion of College Reading and Writing 1 10831104 with a "C" or better

COURSE DESCRIPTIONS

Think Critically & Creatively ☑

108091033 credits

Provides instruction about critical and creative thinking that is in high demand in all occupations. Models, theories, and processes provide the foundation for learning logical thinking strategies. Students will apply a systematic approach to problem solving by analyzing the problem, assessing possible solutions, and making effective decisions. In addition, students will generate ideas and analyze complex issues. This course assists students with developing a critical thinking mindset which is essential at every level of personal and professional life.

Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English

Virtualization

101501303 credits

This course introduces students to virtualization concepts and technologies. Students will gain hands-on experience with hypervisors, virtual machine management, resource allocation, storage solutions, virtual networking, and high availability. The course aligns with foundational virtualization certification objectives but is not specifically designed as a test preparation course.

Prerequisites: Server Administration-Beginning 10150120 and Linux 10151105

Written Communication ☑

108011953 credits

Develops writing skills which include prewriting, drafting, revising, and editing. A variety of writing assignments are designed to help the learner analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. Also develops critical reading and thinking skills through the analysis of a variety of written documents.

Prerequisite: High School GPA of 2.6 and MMW or Accuplacer Writing of 262 or ACT English score of 20 or completion of College Reading and Writing 1 10831104 with a "C" or better