



it network specialist

Associate in Applied Science (AAS) Program Code: 10-150-2 Total Credits: 63-64

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. In this program you will follow guided instructions for setting up and managing multiple computers in a networking environment. You'll also apply concepts in hands-on activities both in and outside the classroom. Past students have repaired and imaged laptops for a local school district, completed a network upgrade for a nonprofit organization, and fixed computers at the PC Clinic.

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.

CHECKLIST:

This section will be completed when meeting with your academic advisor.

- FAFSA (www.fafsa.gov)
- Financial Aid Form(s)
Form(s): _____
- Follow-Up Appointment:
Where: _____
When: _____
With: _____
- Official Transcripts
Mid-State Technical College
Student Services Assistant
1001 Centerpoint Drive
Stevens Point, WI 54481
- Other: _____

mstc.edu
888.575.6782



MID-STATE
TECHNICAL COLLEGE

ADAMS CAMPUS
401 North Main
Adams, WI 53910

MARSHFIELD CAMPUS
2600 West 5th Street
Marshfield, WI 54449

STEVENS POINT CAMPUS
1001 Centerpoint Drive
Stevens Point, WI 54481

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

BACHELOR'S DEGREE OPTIONS

Capella University,
Information Technology (BS)

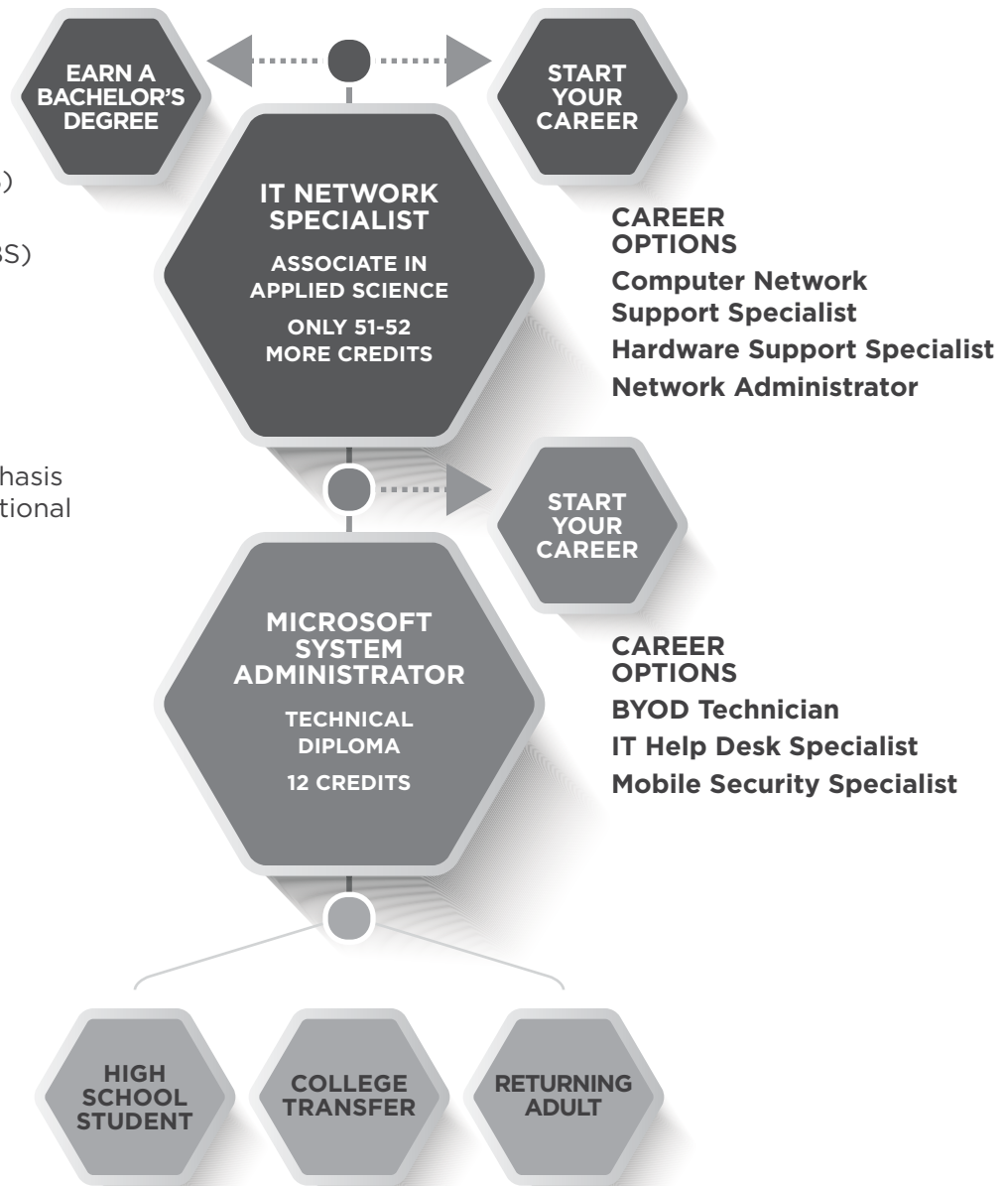
Herzing University,
Technology Management (BS)

Lakeland University,
Computer Science 1920

University of Phoenix,
Management (BS)

UW-Oshkosh,
Organizational Studies emphasis
of Leadership and Organizational
Studies (BAS)

**For more information and
additional opportunities,
visit mstc.edu/transfer.**



College Credit • Dual Credit • Military Experience • Work Experience
Learn about Credit for Prior Learning at mstc.edu/cpl.

**BEGIN AT ANY POINT
IN THE PATHWAY**

OTHER OPTIONS

RELATED PROGRAMS

- Business Analyst
- IT Computer Support Specialist
- IT Security Specialist
- IT Software Developer

SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
10150110	Networking I	3
10151105	Linux	3
10152101	Intro to Programming	3
10154102	Hardware Essentials	3
10801136	English Composition 1	3
Term		15 credits
10150111	Networking II	3
10150120	Server Administration-Beginning	3
10150165	Network Server Scripting	3
10151110	Information Security I	3
10801196	Oral/Interpersonal Communication -or-	
10801198	Speech	3
Term		18-19 credits
10150112	Networking III	3
10150121	Server Administration-Intermediate	3
10150130	Virtualization	3
10154132	Help Desk Fundamentals	3
10804107	College Mathematics	3
	-or-	
10804118	Intermediate Algebra with Applications	4
	-or-	
10804189	Introductory Statistics	3
10809103	Think Critically & Creatively -or-	
10809195	Economics	3
Term		15 credits
10102130	Career Development	3
	-or-	
10150142	Network Specialist Internship	3
	-or-	
10801199	Employment Strategies	3
10150113	Networking IV	3
10150161	Advanced Networking Projects	3
10809166	Intro to Ethics: Theory & Application	3
10809188	Developmental Psychology -or-	
10809198	Intro to Psychology	3
Total Credits 63-64		

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/classfinder.

SAMPLE PART-TIME CURRICULUM OPTION

Term		9 credits
10150110	Networking I	3
10151105	Linux	3
10154102	Hardware Essentials	3
Term		9 credits
10150111	Networking II	3
10151110	Information Security I	3
10150120	Server Administration-Beginning	3
Term		6 credits
10801136	English Composition 1	3
10801196	Oral/Interpersonal Communication -or-	
10801198	Speech	3
Term		9 credits
10152101	Intro to Programming	3
10150112	Networking III	3
10150121	Server Administration-Intermediate	3
Term		6 credits
10150165	Network Server Scripting	3
10154132	Help Desk Fundamentals	3
Term		6-7 credits
10804107	College Mathematics	3
	-or-	
10804118	Intermediate Algebra with Applications	4
	-or-	
10804189	Introductory Statistics	3
10809188	Developmental Psychology -or-	
10809198	Intro to Psychology	3
Term		9 credits
10102130	Career Development	3
	-or-	
10150142	Network Specialist Internship	3
	-or-	
10801199	Employment Strategies	3
10150130	Virtualization	3
10809103	Think Critically & Creatively -or-	
10809195	Economics	3
Term		9 credits
10150113	Networking IV	3
10150161	Advanced Networking Projects	3
10809166	Intro to Ethics: Theory & Application	3
Total Credits 63-64		

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: Information Security I 10151110 and Networking III 10150112

Career Development

101021303 credits

Prepares learners for the process of gaining employment. Learners assess their personal background; practice finding career opportunities through the job search process; develop a cover letter, resume, and thank you letter, and complete a job application; participate in a mock interview; and demonstrate how to deal with interpersonal situations found in a work environment. NOTE: To enroll, you must have completed 50 percent of technical program credits or receive department approval. See program advisor, program faculty, program counselor, or department dean/associate dean to register.

College Mathematics

108041073 credits

Designed to review and develop fundamental concepts of mathematics pertinent to the areas of: 1) arithmetic and algebra; 2) geometry and trigonometry; and 3) probability and statistics. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators. Topics include performing arithmetic operations and simplifying algebraic expressions, solving linear equations and inequalities in one variable, solving proportions and incorporating percent applications, manipulating formulas, solving and graphing systems of linear equations and inequalities in two variables, finding areas and volumes of geometric figures, applying similar and congruent triangles, converting measurements within and between US and metric systems, applying Pythagorean Theorem, solving right and oblique triangles, calculating probabilities, organizing data and interpreting charts, calculating central and spread measures, and summarizing and analyzing data.

Prerequisite: High School GPA of 3.0 or Accuplacer Arithmetic of 250 and QAS 234 or ACT of 17 or Pre-Algebra 834109 with a grade of "C" or better or equivalent. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.

Developmental Psychology

10809188.....3 credits

Studies human development throughout the lifespan and explores developmental theory and research with an emphasis on the interactive nature of the biological, cognitive, and psychosocial changes that affect the individual from conception to death. Application activities and critical thinking skills enable students to gain an increased knowledge and understanding of themselves and others.

Prerequisite: High School GPA of 3.0 or Accuplacer Reading Skills of 236, Writing of 237 or ACT of 15 Reading/16 Writing. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.

Economics

108091953 credits

Provides an overview of how a market-oriented economic system operates and surveys the factors that influence national economic policy. Basic concepts and analyses are illustrated by reference to a variety of contemporary problems and public policy issues. Concepts include scarcity, resources, alternative economic systems, growth, supply and demand, monetary and fiscal policy, inflation, unemployment and global economic issues.

Prerequisite: High School GPA of 3.0 or Accuplacer Reading Skills of 236, Writing of 237 or ACT of 15 Reading/16 Writing. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.

Employment Strategies

108011993 credits

A course designed to assist students in securing employment. This communication-based course helps develop an awareness of personal and academic skills as they relate to the job seeking process. Topics of study include personal and skill assessments, research of employment sources, completion of application forms, formation of professional resumes, composition of various business letters, interviewing skills, and job offer evaluation. NOTE: To enroll you must have completed 50 percent of technical program credits or receive department approval. See program advisor, program faculty, program counselor, or department dean/associate dean to register.

English Composition 1

108011363 credits

Designed for learners to develop knowledge and skills in all aspects of the writing process. Planning, organizing, writing, editing, and revising are applied through a variety of activities. Students analyze audience and purpose, use elements of research, and format documents using standard guidelines. Individuals develop critical reading skills through analysis of various written documents.

Prerequisite: High School GPA of 3.0 or Accuplacer Writing of 262 or ACT of 20 or Intro to College Writing 10-831-103 with a grade of "C" or better or equivalent. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements. Proficiency in word processing skills recommended.

Hardware Essentials

101541023 credits

The first in a two-course series that aligns with the CompTIA A+ certification. This class is designed to teach students how to build, configure, secure, network, and troubleshoot PCs. The course covers the objectives of the CompTIA A+ exams but is not designed or intended to be a "test prep" course.

Corequisite: English Composition 1 10801136

Help Desk Fundamentals

10154132.....3 credits

Provides the learner with the knowledge required to become a Help Desk Support technician. Students will learn fundamental Help Desk concepts such as: Help Desk operations, roles and responsibilities, processes and procedures, tools and technologies, individual and team performance measures, and how to provide support as a Help Desk professional.

Prerequisite: Hardware Essentials 10154102

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.

Prerequisite: Linux 10151105

Intermediate Algebra with Applications

10804118 4 credits

This course offers algebra content with applications. Topics include properties of real numbers; order of operations; algebraic solution for linear equations and inequalities; operations with polynomial and rational expressions; operations with rational exponents and radicals; and algebra of inverse, logarithmic, and exponential functions.

Prerequisite: High School GPA of 3.0 or Accuplacer Arithmetic of 263 and QAS 234 or ACT of 19 or QAS of 245, or Pre-Algebra 10834109 with a grade of "C" or better or equivalent. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.

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 3.0 or Accuplacer Reading Skills of 236, Writing of 237 or ACT of 15 Reading/16 Writing. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.

Intro to Programming

101521013 credits

Applies the basic concepts of computer programming using JavaScript, with an emphasis on structured programming, debugging, and testing. Learners will create JavaScript applications. Additional topics include: online software development resources, programming and documentation standards, variable lifetime/scope, data types, control structures and mathematical calculations.

Corequisite: English Composition 1 10801136

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 3.0 or Accuplacer Reading Skills of 236, Writing of 237 or ACT of 15 Reading/16 Writing. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.

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 3.0 or Accuplacer QAS 241 or ACT of 19 or Pre-Algebra 834109 with a grade of "C" or better or College Math 804107 with a grade of "C" or better or equivalent. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.

Linux

101511053 credits

Covers introductory Linux topics, including operating system basics, system installation, file system management, file system administration, and basic commands.

Corequisite: Hardware Essentials 10154102

Network Server Scripting

101501653 credits

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

Prerequisite: Hardware Essentials 10154102; Corequisite: Server Administration-Beginning 10150120

Network Specialist 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.

Prerequisite: Completion of at least 20 credits in occupational-specific IT Network Specialist courses or consent of instructor.

Networking I

101501103 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 four 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.

Corequisite: English Composition 1 10801136

Networking II

101501113 credits

Describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF,

virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. This course is the second of four 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 Hardware Essentials 10154102

Networking III

101501123 credits

Describes the architecture, components, and operations of routers and switches in a large and complex network. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students are able to configure and troubleshoot routers and switches and resolve common issues with dynamic routing protocols and trunking technologies. This course is the third of four courses 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

101501133 credits

Discusses the WAN technologies and network services required by converged applications in a complex network. The course allows students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students will learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Also develops the knowledge and skills needed to implement virtual private network (VPN) operations in a complex network. This course is the final course in a series of four courses 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 III 10150112

Oral/Interpersonal Communication

108011963 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 3.0 or Accuplacer Reading Skills of 236, Writing of 237, or ACT of 15 Reading/16 Writing. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.

Server Administration-Beginning

101501203 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: Hardware Essentials 10154102

Server Administration-Intermediate

101501213 credits

Expands on the administration skills needed for successful management of a network operating system in a business environment. Topics include installation and configuration of a network operating system, monitoring and performance tuning, monitoring and analyzing network traffic, licensing, network devices, DNS, FTP, web services, and directory services.

Prerequisite: Server Administration-Beginning 10150120

Speech

108011983 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. Bring transcripts for further evaluation if they do not meet these requirements.

Prerequisite: High School GPA of 3.0 or Accuplacer Reading of 253, Writing of 262, or ACT of 21 Reading/19 Writing, or completion of Intro to College Writing and/or Intro to College Reading with a “C” or better or equivalent. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.

Think Critically & Creatively

108091033 credits

Provides instruction in the vital, realistic, and practical methods of thinking that are in high demand in all occupations of substance today. Provides in-depth consideration of decision making, problem solving, detailed analysis of ideas, troubleshooting, argumentation, persuasion, creativity, setting goals and objectives, and more. Students apply specific thinking strategies and tools to situations in a wide variety of workplace, personal, academic, and cultural situations. Classroom instruction is based on demonstration, discussion, projects, and teamwork. Assignments range from the short and simple to the detailed and complex. Focuses on reality and practicality throughout.

Prerequisite: High School GPA of 3.0 or Accuplacer Reading Skills of 236, Writing of 237 or ACT of 15 Reading/16 Writing. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.

Virtualization

101501303 credits

This course introduces students to virtualization and virtualization technologies like VMware. In this course students will get first hand experience using ESXi, vSphere, vCenter, vMotion, storage types, vSwitches, and high availability. This course aligns with the VCP-DCV certification. The course covers the objectives of the VCP-DCV exam but is not designed nor intended to be a “test prep” course.

Prerequisite: Server Administration-Beginning 10150120