



# accounting

## Associate in Applied Science (AAS) Program Code: 10-101-1 Total Credits: 63-64

Mid-State's Accounting program is ideal for students with strong logic and attention to detail. Graduates are prepared for entry-level positions in exciting business and industry settings as well as public accounting firms and not-for-profit businesses. The program provides stimulating cooperative learning activities, some taking you outside the classroom for real-world experience. Class activities include hands-on income tax and payroll projects, computerized simulations, and guest lectures.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

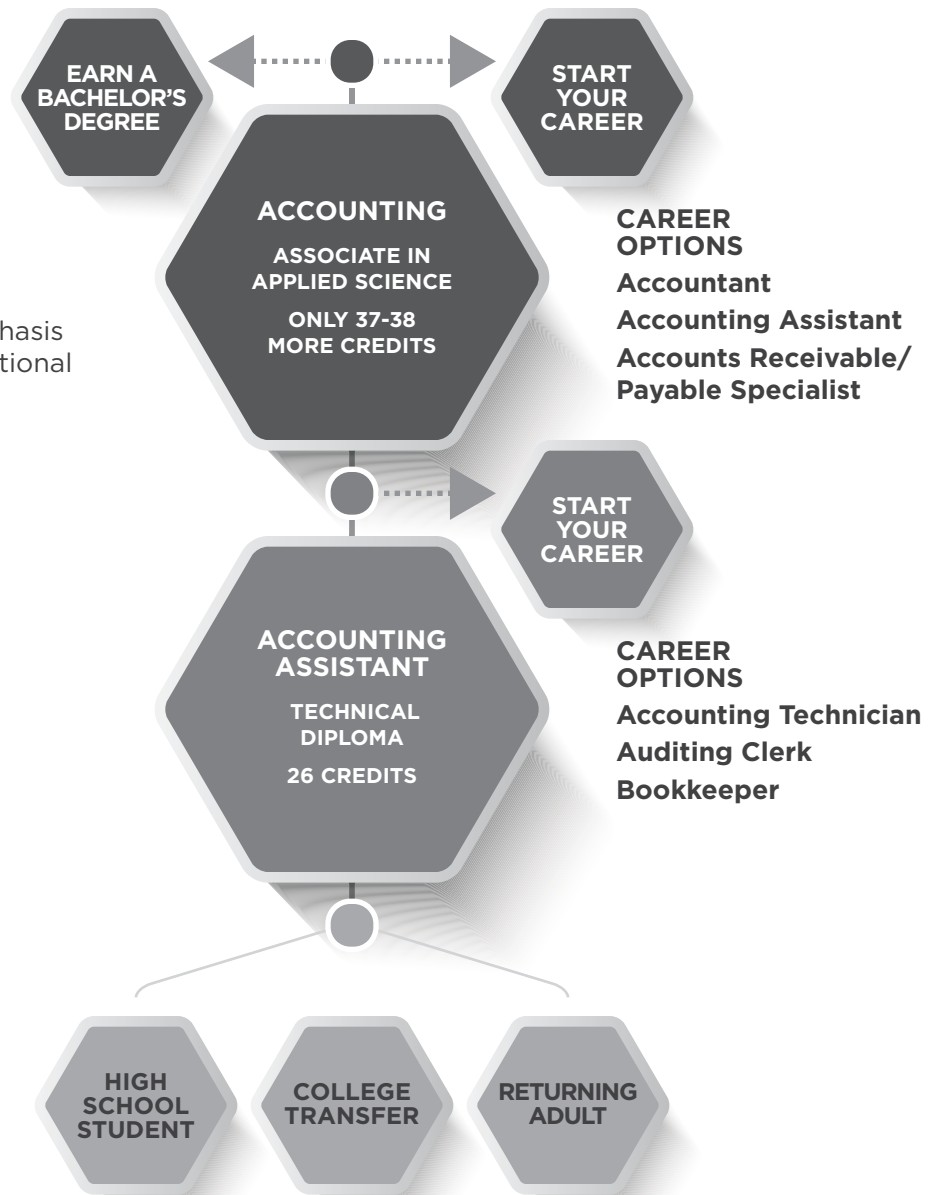
## BACHELOR'S DEGREE OPTIONS

Herzing University,  
Accounting (BS)

Lakeland University,  
Accounting (BS)

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

**For more information and  
additional opportunities,  
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**BEGIN AT ANY POINT  
IN THE PATHWAY**

## PROGRAM OUTCOMES

Employers will expect you, as an Accounting graduate, to be able to:

- Process financial transactions throughout the accounting cycle.
- Analyze financial and business information to support planning and decision making.
- Perform payroll preparation, reporting, and analysis tasks.
- Perform cost accounting preparation, reporting, and analysis tasks.
- Perform individual and/or organizational tax accounting preparation, reporting, and analysis tasks.
- Identify internal controls to reduce risk.
- Adapt accounting processes and principles to a government and/or not-for-profit environment.
- Manage accounting data through advanced spreadsheet applications.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students will be assessed on the TSA outcomes in the Accounting Capstone and Cost Accounting courses.

## NOTES:

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## STUDENT HANDBOOK

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## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

**10890102 ..... 1 credit**  
 Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 .....2 credits**  
 Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 .....3 credits**  
 Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 .....3 credits**  
 Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

<b>Term</b>		<b>16 credits</b>
10101111	Accounting I	4
10101120	Payroll Accounting	3
10102101	Intro to Business	3
10103106	Microsoft Office-Introduction	3
10801136	English Composition 1	3
<b>Term 16-17 credits</b>		
10101106	Excel for Accounting	3
10101113	Accounting II	4
10101123	Income Tax Accounting	3
10101129	QuickBooks Applications	3
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
<b>Term 16 credits</b>		
10101116	Intermediate Accounting I	4
10101128	Managerial Finance	3
10101131	Government and Nonprofit Accounting	3
10102104	Business Law <b>-or-</b>	
10102110	Employment Law	3
10809195	Economics	3
<b>Term 15 credits</b>		
10101125	Cost Accounting	3
10101158	Accounting Capstone	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
10809122	Intro to American Government <b>-or-</b>	
10809172	Introduction to Diversity Studies <b>-or-</b>	
10809196	Intro to Sociology	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3
<b>Total credits 63-64</b>		

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

<b>Term</b>		<b>7 credits</b>
10101111	Accounting I	4
10103106	Microsoft Office-Introduction	3
<b>Term 7 credits</b>		
10101113	Accounting II	4
10801136	English Composition 1	3
<b>Term 9-10 credits</b>		
10101120	Payroll Accounting	3
10102101	Intro to Business	3
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
<b>Term 9 credits</b>		
10101123	Income Tax Accounting	3
10101106	Excel for Accounting	3
10101129	QuickBooks Applications	3
<b>Term 7 credits</b>		
10101116	Intermediate Accounting I	4
10102104	Business Law <b>-or-</b>	
10102110	Employment Law	3
<b>Term 9 credits</b>		
10101125	Cost Accounting	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3
<b>Term 9 credits</b>		
10101131	Government and Nonprofit Accounting	3
10101128	Managerial Finance	3
10809195	Economics	3
<b>Term 6 credits</b>		
10101158	Accounting Capstone	3
10809122	Intro to American Government <b>-or-</b>	
10809172	Introduction to Diversity Studies <b>-or-</b>	
10809196	Intro to Sociology	3
<b>Total credits 63-64</b>		



# course descriptions

## Accounting Capstone

**10101158 .....3 credits**

This project based course gives students the opportunity to demonstrate technical competency in areas covered in program courses. Financial accounting, management accounting, payroll accounting, tax accounting, and cost accounting are used. The project simulates many of the tasks students are expected to perform as accounting professionals.  
*Prerequisite: Twelve 10-102 Accounting credits*

## Accounting I

**10101111..... 4 credits**

A beginning course designed especially for majors or those who need a strong foundation in accounting principles. Develops the accounting cycle of journaling, posting, adjusting, closing, and reporting. Also emphasizes service and merchandising sole proprietorships in developing the accounting cycle. Explores issues for accounting for cash, accounts and notes receivable, inventories, and fixed assets.

## Accounting II

**10101113 ..... 4 credits**

Studies accounting procedures for partnerships and corporations. Issues involving incorporation are reviewed. Accounting procedures for corporate stock, dividends, retained earnings, bonds, and long-term investments are presented. Analysis of financial statements is introduced and statements of cash flows are prepared.

*Prerequisite: Accounting I 10101111; Corequisite: Microsoft Office-Introduction 10103106 or Excel-Beginning 10103123*

## Business Law

**10102104 .....3 credits**

Introduces the basic foundation of laws and regulatory systems applicable to the business environment. Students examine the UCC, contract torts, agency law, and business and cybercrime. Students apply business legal theory in conjunction with ethical decision making through practical application.

## College Mathematics

**10804107 .....3 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.*

## Cost Accounting

**10101125 .....3 credits**

Accumulates production costs for materials, labor, and overhead for job order or process costing systems. Determines and records variances from standard. Computes various cost-volume-profit relationships for control and decision making.

*Prerequisite: Accounting II 10101113*

## 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

**10809195 .....3 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 Law

**10102110 .....3 credits**

Introduces a broad scope of employment laws and provides the opportunity to apply these laws to the employment arena. Includes laws relating to anti-discrimination, including the Civil Rights Act, ADEA, and ADA; wage and hour regulation, including FLSA; employer-provided pensions, including ERISA; health insurance, including COBRA and ACA; and unemployment and worker's compensation insurance.

## English Composition 1

**10801136 .....3 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.*

# course descriptions

## Excel for Accounting

**10101106.....3 credits**

Microsoft Excel is a vital tool for many accounting tasks. This course covers basic and advanced features within Excel and relates them to various accounting tasks. Using Excel, students will perform accounting tasks and will experience the gathering, analysis, and reporting of accounting data.

*Prerequisites: Accounting I 10101111 and Microsoft Office-Introduction 10103106 or Excel-Beginning 10103123*

## Government and Nonprofit Accounting

**10101131.....3 credits**

Emphasizes the basic concepts, techniques, and terminology of fund accounting as utilized by governmental entities. Institutional accounting for educational institutions and hospitals, and the uniqueness of accounting for not-for-profit organizations and agencies, are also studied.

*Prerequisite: Accounting II 10101113*

## Income Tax Accounting

**10101123 .....3 credits**

Applies current tax laws in preparing individual tax returns and supporting forms and schedules.

## Intermediate Accounting I

**10101116..... 4 credits**

This course builds upon financial accounting concepts covered in Accounting I and Accounting II. Topics include the conceptual framework as the basis of developing accounting guidance, multi-purpose financial statements, short and long-term assets, time value of money concepts, revenue recognition, and an overview of auditing concepts.

*Prerequisite: Accounting II 10101113*

## 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 American Government

**10809122.....3 credits**

Introduces American political processes and institutions. Focuses on rights and responsibilities of citizens and the process of participatory democracy. Learners examine the complexity of the separation of powers and checks and balances. Explores the role of the media, interest groups, political parties, and public opinion in the political process. Also explores the role of state and national government in our federal system.

*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 Business

**10102101.....3 credits**

An introduction to what a business is, how it operates, and how it is managed. Students identify forms of ownership and the processes used in production and marketing, finance, personnel, and management in business operations.

## Intro to Psychology

**10809198 .....3 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.*

## Intro to Sociology

**10809196 .....3 credits**

Introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions of family, politics, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, and social organization.

*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.*

## Introduction to Diversity Studies

**10809172.....3 credits**

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored.

*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.*

## Managerial Finance

**10101128 .....3 credits**

Focuses on the corporate finance function including role of corporate finance professionals, time value of money, cost of capital, valuation, capital structure, and capital budgeting issues. Students will also be introduced to capital budgeting analysis, cost-volume-profit analysis, profit planning, and differential analysis.

*Prerequisite: Accounting II 10101113*

## Microsoft Office-Introduction

**10103106 .....3 credits**

Develops introductory skills in the Microsoft Office Suite (Word, Excel, Access, PowerPoint, and Outlook) while reinforcing the students' knowledge of computer concepts, Windows Explorer, and web usage. Students should possess basic keyboarding, mouse and Windows 10 skills. Students may develop these skills in the LiNK while concurrently enrolled in this course.

## 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 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.*

## Payroll Accounting

**10101120 .....3 credits**

Develops a working knowledge of payroll legislation, payroll records, and payroll accounting. Payroll accounting is accomplished through manual methods and automated methods.

*Corequisites: Accounting I 10101111 and Microsoft Office-Introduction 10103106*

## QuickBooks Applications

**10101129 .....3 credits**

Uses the computer as a tool to reinforce and build on accounting concepts. Students prepare financial statements and managerial reports, produce business documents, and account for service and merchandising business entities.

*Prerequisites: Accounting I 10101111; Microsoft Office-Introduction 10103106 or Excel-Beginning 10103123*

## 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. 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.*



# accounting assistant

## Technical Diploma

**Program Code: 31-101-1**

**Total Credits: 26**

The Accounting Assistant program at Mid-State is ideal for students with strong logic and attention to detail. The program develops financial and managerial accounting skills and an understanding of financial reporting. Students also learn critical aspects of budgeting and technology as well as communication skills to be successful in their role. Students in the program will develop the skills needed to record, post, and reconcile accounting data in the areas of accounts payable, accounts receivable, sales, purchasing, budgeting, and payroll. They will also learn to summarize and report financial information, and provide support within the financial functions of an organization. Students also gain basic tax preparation skills. Includes cooperative learning activities that provide real-world experiences, both inside and outside the classroom.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://mstc.edu/programcosts)

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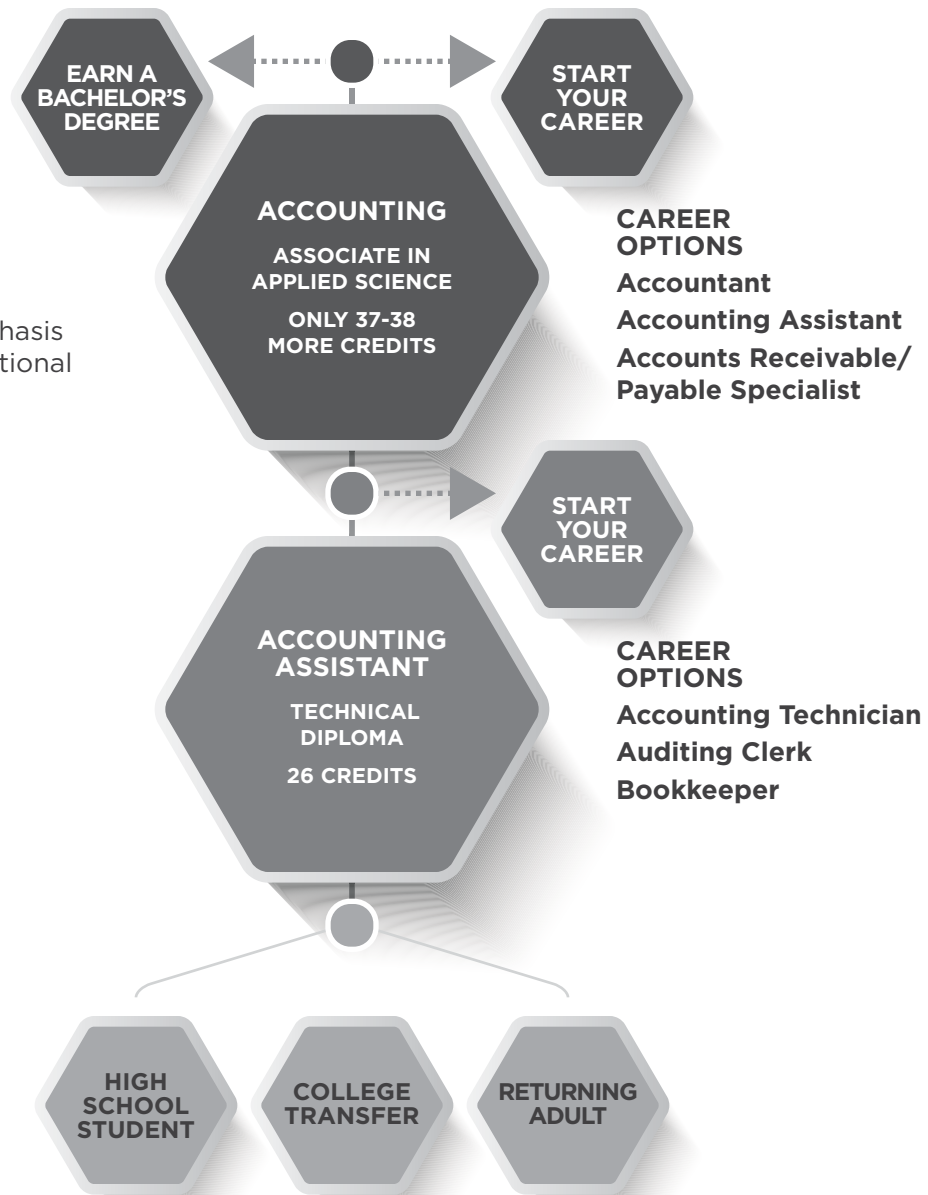
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<b>Term</b>		<b>13 credits</b>
10101111	Accounting I	4
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<b>Term</b>		<b>7 credits</b>
10101113	Accounting II	4
10801136	English Composition 1	3
<b>Term</b>		<b>6 credits</b>
10101123	Income Tax Accounting	3
10804107	College Mathematics	3
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10101120	Payroll Accounting	3
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		<b>Total credits 26</b>

# course descriptions

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## Accounting II

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Studies accounting procedures for partnerships and corporations. Issues involving incorporation are reviewed. Accounting procedures for corporate stock, dividends, retained earnings, bonds, and long-term investments are presented. Analysis of financial statements is introduced and statements of cash flows are prepared.

*Prerequisite: Accounting I 1010111; Corequisite: Microsoft Office-Introduction 10103106 or Excel-Beginning 10103123*

## College Mathematics

**10804107 .....3 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.*

## English Composition 1

**10801136 .....3 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.*

## Income Tax Accounting

**10101123 .....3 credits**

Applies current tax laws in preparing individual tax returns and supporting forms and schedules.

## Microsoft Office-Introduction

**10103106 .....3 credits**

Develops introductory skills in the Microsoft Office Suite (Word, Excel, Access, PowerPoint, and Outlook) while reinforcing the students' knowledge of computer concepts, Windows Explorer, and web usage. Students should possess basic keyboarding, mouse and Windows 10 skills. Students may develop these skills in the LiNK while concurrently enrolled in this course.

## Payroll Accounting

**10101120 .....3 credits**

Develops a working knowledge of payroll legislation, payroll records, and payroll accounting. Payroll accounting is accomplished through manual methods and automated methods.

*Corequisites: Accounting I 1010111 and Microsoft Office-Introduction 10103106*

## QuickBooks Applications

**10101129 .....3 credits**

Uses the computer as a tool to reinforce and build on accounting concepts. Students prepare financial statements and managerial reports, produce business documents, and account for service and merchandising business entities.

*Prerequisites: Accounting I 1010111; Microsoft Office-Introduction 10103106 or Excel-Beginning 10103123*





# administrative professional

## Associate in Applied Science (AAS) Program Code: 10-106-6 Total Credits: 61-62

Graduates of Mid-State's Administrative Professional program are known for being adaptable and well prepared for today's workforce. Students learn to create and edit correspondence, work with customers, develop research reports, handle private or confidential records, and more. The program emphasizes fundamental knowledge of software applications, customer service skills, and the expert operation of a variety of office technology and equipment. You'll experience hands-on learning through the organization of high-profile events.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

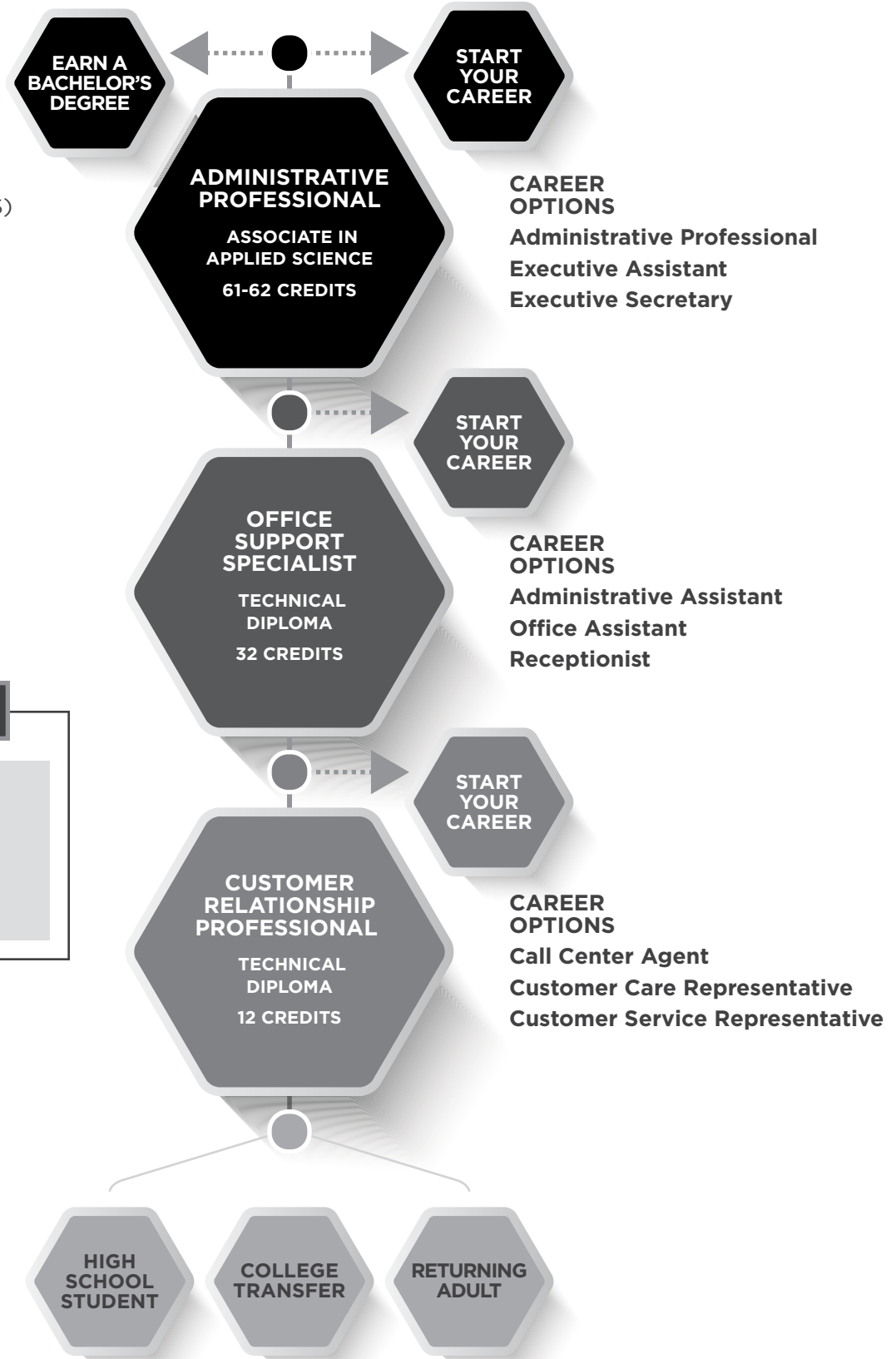
**STEVENS POINT CAMPUS**  
1001 Centerpoint Drive  
Stevens Point, WI 54481

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

**BACHELOR'S DEGREE OPTIONS**

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

**For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**OTHER OPTIONS**

**RELATED PROGRAMS**

- Business Management
- Entrepreneurship
- Human Resources Assistant
- Leadership Development
- Project Management

**College Credit • Dual Credit • Military Experience • Work Experience**  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## PROGRAM OUTCOMES

Employers will expect you, as an Administrative Professional graduate, to be able to:

- Demonstrate effective workplace communications.
- Apply technology skills to business and administrative tasks.
- Perform routine administrative procedures.
- Manage administrative projects.
- Maintain internal and external relationships.
- Model professionalism in the workplace.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Administrative Professional program outcomes are measured in the TSA-designated courses Administrative Office Procedures and Supervised Field Experience.

## MOBILE DEVICE ENHANCEMENT

To support your hands-on learning and give you an edge in today's digital workplace, Administrative Professional program students are required to purchase an iPad device. Students accepted into the program will receive specific details about purchasing the mobile device (financial aid available).

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

**10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 ..... 2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 ..... 3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 ..... 3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
10103106	Microsoft Office-Introduction*	3
10106106	Quality Customer Service*	3
10106157	Document Formatting	3
10801136	English Composition 1*	3
10809172	Introduction to Diversity Studies*	3

Term		17 credits
10103114	Word-Intermediate*	1
10103125	Excel Applications*	2
10106140	Business Information Management	3
10106150	Administrative Office Procedures	3
10106158	Proofreading & Editing	2
10106172	Digital Communication Technology	3
10801196	Oral/Interpersonal Communication* <b>-or-</b>	
10801198	Speech*	3

Term		15-16 credits
10102101	Intro to Business*	3
10106162	Graphics & Print Media	3

10804107	College Mathematics*	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications*	4
	<b>-or-</b>	
10804189	Introductory Statistics*	3

10809122	Intro to American Government* <b>-or-</b>	
10809196	Intro to Sociology*	3
	Elective*	3

Term		14 credits
10102130	Career Development* <b>-or-</b>	
10801199	Employment Strategies*	3
10104107	Social Media Marketing	3
10106135	Supervised Field Experience	2
10106180	Advanced Software Applications	3
10809188	Developmental Psychology* <b>-or-</b>	
10809198	Intro to Psychology*	3

**Total credits 61-62**

\* This course may also be offered in a different term including during winterim or summer terms, with 3-week, 8-week, or 16-week sessions available. A variety of modalities and class lengths may be available, including online, hybrid, TelePresence, or face to face.

Please Note:

- **This program can be completed entirely online.**
- Students complete a full-time course load over a 16-week term. This term may include a combination of classes taken in an 8-week session and classes taken over the full 16-week term.
- 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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		9 credits
10103106	Microsoft Office-Introduction*	3
10106157	Document Formatting	3
10809172	Introduction to Diversity Studies*	3

Term		8 credits
10106106	Quality Customer Service*	3
10106158	Proofreading & Editing	2
10801136	English Composition 1*	3

Term		6 credits
10103114	Word-Intermediate*	1
10103125	Excel Applications*	2
10801196	Oral/Interpersonal Communication* <b>-or-</b>	
10801198	Speech*	3

Term		9 credits
10106140	Business Information Management	3
10106150	Administrative Office Procedures	3
10106172	Digital Communication Technology	3

Term		9 credits
10102101	Intro to Business*	3
10106162	Graphics & Print Media	3
10809122	Intro to American Government* <b>-or-</b>	
10809196	Intro to Sociology*	3

Term		9 credits
10102130	Career Development* <b>-or-</b>	
10801199	Employment Strategies*	3
10104107	Social Media Marketing	3
10809188	Developmental Psychology* <b>-or-</b>	
10809198	Intro to Psychology*	3

Term		6-7 credits
10804107	College Mathematics*	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications*	4
	<b>-or-</b>	
10804189	Introductory Statistics*	3
	Elective*	3

Term		5 credits
10106135	Supervised Field Experience	2
10106180	Advanced Software Applications	3

**Total credits 61-62**

## Administrative Office Procedures

**10106150 .....3 credits**

Develops professional skills and attitudes needed in a global business environment. Skills include time management, problem solving, and decision making while working independently and as part of a team. Tasks such as electronic mail, calendaring, meeting and event planning, domestic and international travel, and project management and minute-taking are included. Familiarity with office machines is required.

*Corequisites: English Composition 1 10801136 and Microsoft Office-Introduction 10103106*

## Advanced Software Applications

**10106180 .....3 credits**

Integrates multiple advanced software applications by utilizing concepts such as importing/exporting, linking/embedding, and copying/pasting. Students manage information and apply critical thinking skills to create professional documents simulating real-world projects.

*Prerequisites: Microsoft Office-Introduction 10103106, Word-Intermediate 10103114, Excel Applications 10103125, and Document Formatting 10106157*

## Business Information Management

**10106140 .....3 credits**

Following commonly-used ARMA rules, the student applies basic filing methods to paper and database filing systems. Methods to permanently archive data are also covered.

*Corequisite: Microsoft Office-Introduction 10103106*

## Career Development

**10102130 .....3 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

**10804107 .....3 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 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.*

## 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.*

## Digital Communication Technology

**10106172 .....3 credits**

Introduces the student to digital and communication technology used in the office today, including digital cameras, digital video cameras, video conferencing, web conferencing, and multimedia presentations. The content focuses on understanding communication technologies and how they impact employees.

*Corequisite: Microsoft Office-Introduction 10103106*

## Document Formatting

**10106157 .....3 credits**

Students are able to format styles of business letters, business and academic reports, memos, tables, business meeting documents, itineraries, legal documents, and business forms. Also includes drill work for improving keying speed and accuracy. Minimum typing speed of 30 wpm required (alphabetic keys only).

*Corequisite: Microsoft Office-Introduction 10103106*

## Employment Strategies

**10801199 .....3 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

**10801136 .....3 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 10831103 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.*

## Excel Applications

**10103125.....2 credits**

Learners will expand on basic Excel skills including managing multiple workbooks and worksheets using 3D references, links, and hyperlinks. They will also learn to summarize and analyze data using subtotals, PivotTables, PivotCharts, Goal Seek, Solver and Scenario Manager tools. This course teaches students to gather data and turn it into meaningful information used for business decision-making.

*Prerequisites: Microsoft Office Introduction 10103106 or Excel Beginning 10103123*

## Graphics & Print Media

**10106162 .....3 credits**

Develops skill to effectively create graphics and design publications. Students produce print media, design, and layout print jobs using the most appropriate software package for the job.

*Corequisite: Microsoft Office Introduction 10103106*

## 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 American Government

**10809122.....3 credits**

Introduces American political processes and institutions. Focuses on rights and responsibilities of citizens and the process of participatory democracy. Learners examine the complexity of the separation of powers and checks and balances. Explores the role of the media, interest groups, political parties, and public opinion in the political process. Also explores the role of state and national government in our federal system.

*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 Business

**10102101.....3 credits**

An introduction to what a business is, how it operates, and how it is managed. Students identify forms of ownership and the processes used in production and marketing, finance, personnel, and management in business operations.

## Intro to Psychology

**10809198 .....3 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.*

## Intro to Sociology

**10809196 .....3 credits**

Introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions of family, politics, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, and social organization

*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.*

## Introduction to Diversity Studies

**10809172.....3 credits**

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored.

*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

**10804189 .....3 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 10834109 with a grade of "C" or better or College Math 10804107 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.*

## Microsoft Office-Introduction

**10103106 .....3 credits**

Develops introductory skills in the Microsoft Office Suite (Word, Excel, Access, PowerPoint, and Outlook) while reinforcing the students' knowledge of computer concepts, Windows Explorer, and web usage. Students should possess basic keyboarding, mouse and Windows 10 skills. Students may develop these skills in the LiNK while concurrently enrolled in this course.

## 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 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.*

## Proofreading & Editing

**10106158 .....2 credits**

Sharpens proofreading and editing skills. Competencies include detecting and editing errors in keying, spelling, capitalization, plurals, possessives, punctuation, numbers, grammar, sentence structure, and formatting. Documents are edited for clarity, conciseness, and completeness.

*Corequisite: Microsoft Office-Introduction 10103106*

## Quality Customer Service

**10106106 .....3 credits**

Addresses sensitivity in communicating with customers and co-workers. Includes international communications, teamwork, working relationships, and telephone skills.

## Social Media Marketing

**10104107 .....3 credits**

Addresses how social media has transformed marketing communications from traditional mass media to individualized marketing. Using a variety of social media tools and platforms, this class explores the different methodologies for social media marketing. Topics include creating social media, integrating social media as part of a marketing campaign, the concept of viral marketing, measuring social media success through analytics, and how organizations and individuals have successfully applied this form of marketing.

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

*Pre-requisite: 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.*

## Supervised Field Experience

**10106135 .....2 credits**

This course integrates Administrative Professional classroom study with specific off-campus occupational experiences at selected training sites. An organized plan of experiences built around office competencies is planned, supervised, and evaluated by the instructor and cooperating business trainer.

*Prerequisite: Completion of at least 24 credits of Computer Software 10-103 and/or Administrative Professional 10-106 courses or consent of instructor.*

## Word-Intermediate

**10103114 .....1 credit**

Students learn to create more complex documents using Microsoft Word as well as customize the Word environment. Students also learn to use mail merge, macros, collaborate with others, and combine information into one file.

*Prerequisite: Microsoft Office-Introduction 10103106 or Word-Beginning 10103113*



# agribusiness and science technology

## Associate in Applied Science (AAS)

**Program Code: 10-006-2**

**Total Credits: 60-61**

Mid-State's Agribusiness and Science Technology program prepares students to be owners or employees of a farm business in all sectors of the agriculture industry or work in businesses that support the agriculture industry. The program includes dairy and livestock management and traditional crop production. You'll learn to develop a nutrient management plan, calculate cost of production, and develop a long-term facility and equipment plan as well as a farm business plan. Hands-on experiences include taking soil samples; identifying diseases, insects, and weeds that impact profitability; and working with livestock nutrition and management. Graduates obtain a private pesticide applicators certificate.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

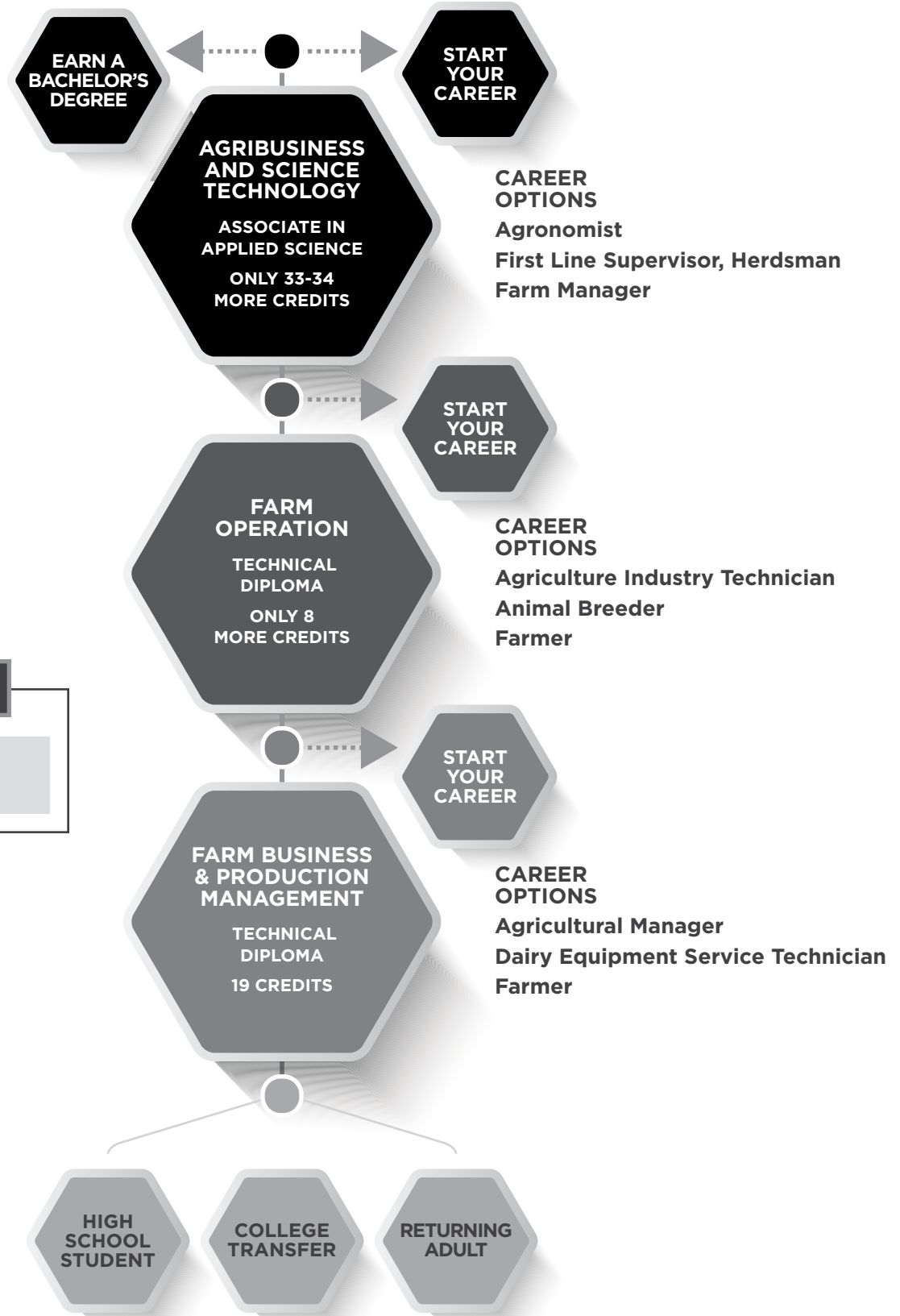
**WISCONSIN RAPIDS CAMPUS**  
500 32nd Street North  
Wisconsin Rapids, WI 54494



**BACHELOR'S DEGREE OPTIONS**

UW-River Falls,  
Agricultural Studies (BS)

For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).



**OTHER OPTIONS**

**RELATED PROGRAMS**

- Arborist Technician

College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## PROGRAM OUTCOMES

Employers will expect you, as an Agribusiness and Science Technology graduate, to be able to:

- Create a crop management plan.
- Develop an agribusiness management plan.
- Apply economic and marketing strategies to agribusiness industry.
- Apply relevant technologies.
- Create a livestock management plan.
- Investigate opportunities in agribusiness.
- Interact as a professional in agribusiness.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students are notified of TSA reporting in their final few courses of the program.

## NOTES:

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## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

**10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 ..... 2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 ..... 3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 ..... 3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

**SAMPLE FULL-TIME CURRICULUM OPTION**

<b>Term</b>		<b>14-15 credits</b>
10080105	Intro to Soil Science	3
10080140	Farm Financial Analysis	3
10091102	Intro to Animal Science	3
10093101	Integrated Pest Management	2
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
<b>Term</b>		<b>15 credits</b>
10070101	Basic Agricultural Electrical Systems	2
10093102	Intro to Precision Agriculture	3
10091103	Animal Nutrition	4
10801136	English Composition 1	3
10806184	Plant Biology	3
<b>Term</b>		<b>14 credits</b>
10006104	Intro to Agriculture Engineering Technology	3
10070102	Precision Equipment Systems	2
10090101	Agriculture Business Management	3
10093104	Principles of Crop Management	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
<b>Term</b>		<b>17 credits</b>
10003101	Agricultural Diesel Engine Systems	3
10006101	Agricultural Computations	3
10006102	Agribusiness Equipment & Facilities	2
10006103	Introduction to Food Science	3
10809166	Intro to Ethics: Theory & Application	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3
<b>Total credits 60-61</b>		

## 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](http://mstc.edu/classfinder).

**SAMPLE PART-TIME CURRICULUM OPTION**

<b>Term</b>		<b>6 credits</b>
10080105	Intro to Soil Science	3
10091102	Intro to Animal Science	3
<b>Term</b>		<b>7 credits</b>
10091103	Animal Nutrition	4
10093102	Intro to Precision Agriculture	3
<b>Term</b>		<b>6 credits</b>
10090101	Agriculture Business Management	3
10093104	Principles of Crop Management	3
<b>Term</b>		<b>8 credits</b>
10006101	Agricultural Computations	3
10006102	Agribusiness Equipment & Facilities	2
10003101	Agricultural Diesel Engine Systems	3
<b>Term</b>		<b>8 credits</b>
10080140	Farm Financial Analysis	3
10093101	Integrated Pest Management	2
10801136	English Composition 1	3
<b>Term</b>		<b>8 credits</b>
10070101	Basic Agricultural Electrical Systems	2
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
10806184	Plant Biology	3
<b>Term</b>		<b>8-9 credits</b>
10006104	Intro to Agriculture Engineering Technology	3
10070102	Precision Equipment Systems	2
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
<b>Term</b>		<b>9 credits</b>
10006103	Introduction to Food Science	3
10809166	Intro to Ethics: Theory & Application	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3
<b>Total credits 60-61</b>		

## **Agribusiness Equipment & Facilities**

**10006102.....2 credits**

Examines arrangement and design of efficient farm buildings and equipment as well as construction requirements. Farmstead planning includes mapping of present facilities as well as evaluating usefulness and planning long and short-range goals for farmstead changes to improve economics, safety, efficiency and aesthetics. Environmental factors and animal wellness needs are identified, including space, ventilation, nutrition, and care. Also examines the appropriate use and care of feed, fertilizer, planting and harvesting equipment, and dairy and livestock equipment and facilities. Possible equipment/facility changes are discussed and business expansion is analyzed.

## **Agricultural Computations**

**10006101.....3 credits**

Deals with the application of quantitative tools to support agribusiness management decisions. These management decisions are executed using spreadsheet and data analysis (e.g., Microsoft Excel) while using elementary mathematical tools in an agricultural economics context. This course is designed to prepare students for upper-level agribusiness courses as well as real-world situations in agriculture.

## **Agricultural Diesel Engine Systems**

**10003101.....3 credits**

Students learn the different uses of diesel engines in an agricultural setting. This course also provides an introduction to fuel systems, exhaust systems, and electrical systems. Use of technical service resources and precision measuring is stressed.

## **Agriculture Business Management**

**10090101.....3 credits**

Examines the farm business as a complex set of enterprises that all need to be managed effectively to be successful and sustainable. Students learn to develop a business plan, set short- and long-term goals, identify and implement alternatives for reaching goals. Includes strategies and tools to monitor success. Students also learn to organize and maintain farm business records as well as how to interpret and analyze the records to make sound farm management decisions.

## **Animal Nutrition**

**10091103..... 4 credits**

Students demonstrate how to formulate and balance rations for several species of livestock. Includes knowledge of the nutritional needs of various species and ability to identify different feedstuffs. Students become familiar with the laws and regulations on livestock feeding along with reading, interpreting, and making recommendations from feed test reports/tags. They are also able to successfully understand the digestive systems of mono-gastric and ruminant animals.

*Prerequisite: Intro to Animal Science 10091102 or consent of an instructor*

## **Basic Agricultural Electrical Systems**

**10070101.....2 credits**

Students learn the fundamentals of electrical systems related to agricultural equipment and facilities. This course also builds an understanding of the AC electrical circuits used in today's agricultural businesses. Students use digital multi-meters to diagnose common electrical problems found in agricultural electrical circuits, equipment, and motors. Topics discussed include safety precautions, Ohm's law, generators, batteries, electric motors, water heaters, overcurrent protection, conductor sizing, and national electrical code requirements.

## **College Mathematics**

**10804107 .....3 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.*

## English Composition 1

**10801136 .....3 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.*

## Farm Financial Analysis

**10080140 .....3 credits**

This course provides the student opportunities to develop necessary business skills for operating a successful farm business. These skills involve analyzing, evaluating, creating and decision-making. These skills will be used with balance sheets, Income & Expense projections, cash flow needs, budget creation, benchmarking, cost of production, inventories, credit needs and history along with loan decisions.

## Integrated Pest Management

**10093101 .....2 credits**

An effective and environmentally sensitive approach to pest management. Learners explore various approaches in integrated pest management (IPM) and gather information on the life cycles of pests and their interactions with the environment. This information in combination with available pest control methods are used to identify the most economical pest management options, with the least possible hazard to people, property, and environment.

## 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 Agriculture Engineering Technology

**10006104 .....3 credits**

Studies engineering concepts and principles as they apply to farm power and machinery, electrical energy and processing, structures and environment, irrigation and drainage, and food engineering. Students are exposed to techniques in design, planning, construction, and performance evaluation.

## Intro to Animal Science

**10091102 .....3 credits**

Introduces the basics of livestock management. Examines management of dairy, beef, sheep, and other common livestock with concentration on nutrition, feedstuff's classification, reproduction, genetics, animal behavior, animal health, and sustainable agriculture practices. Includes basic husbandry and care procedures for animals. A livestock management plan will be created and analyzed.

## Intro to Ethics: Theory & Application

**10809166 .....3 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 Precision Agriculture

**10093102 .....3 credits**

Explores agricultural applications of GPS, yield monitoring systems, and mapping. Students learn to interpret maps generated by precision agriculture equipment. Learners experience setup, calibration and operation of equipment/software designed to support the production crop industry.

## Intro to Psychology

**10809198 .....3 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.*

## Intro to Soil Science

**10080105 .....3 credits**

Designed to provide students with fundamental knowledge of soil and soil composition. Includes study of soil types, formation factors, physical properties, biological properties, and basic soil chemistry. Units covering tillage, conservation, pH, soil management, plant nutrients, and fertilizer sources are also included. Students gain the skills required to interpret soil test reports and soil survey maps and recognize qualities of various soil types. Students perform soil sampling, residue measurements, compaction assessments, and soil loss determinations per crop rotation guidelines. A nutrient management plan is created and analyzed.

## **Introduction to Food Science**

**10006103 .....3 credits**

Offers students unique opportunities to learn where their food supply comes from, how the food is produced, and how consumption is met on a global basis. Applying science principles to food production will enhance the student's ability to understand the phenomena of food production.

## **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 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.*

## **Plant Biology**

**10806184 .....3 credits**

This lecture/laboratory course provides students with an in-depth study of the plant kingdom. The content includes, but is not limited to, plant cell anatomy and physiology, plant genetics, plant classification, plant anatomy and physiology, plant responses, plant life cycles, and ecology. A survey of viruses, prokaryotes, protista, and fungi as they pertain to plants is presented.

## **Precision Equipment Systems**

**10070102 .....2 credits**

Provides experience with different precision farming GPS systems used on agriculture equipment. Students learn proper setup, calibration, and installation of the systems. Students also create and interpret maps and learn adjustments and settings as well as GPS display and the different functions related.

## **Principles of Crop Management**

**10093104 .....3 credits**

The basic principles and concepts of sound agronomic practices are discussed for corn, soybeans, small grains, and forage crops grown in Wisconsin. All sound agronomy practices are emphasized for each crop area as it relates to cultural and other specific inputs of crop production, environmental factors, and sustainable systems.

## **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. 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.*



# arborist technician

## Associate in Applied Science (AAS) Program Code: 10-001-5 Total Credits: 64-65

Mid-State's Arborist Technician graduates enter the workforce with real-world knowledge and skills. Our students learn the fundamentals of pruning, plant health care, tree planting and maintenance, plant identification, tree risk assessment, and landscape installation and management. Our unique aerial component gives our graduates experience working safely in the trees. You'll learn rope and saddle climbing, work with aerial lifts, and operate brush clippers and other industry equipment.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

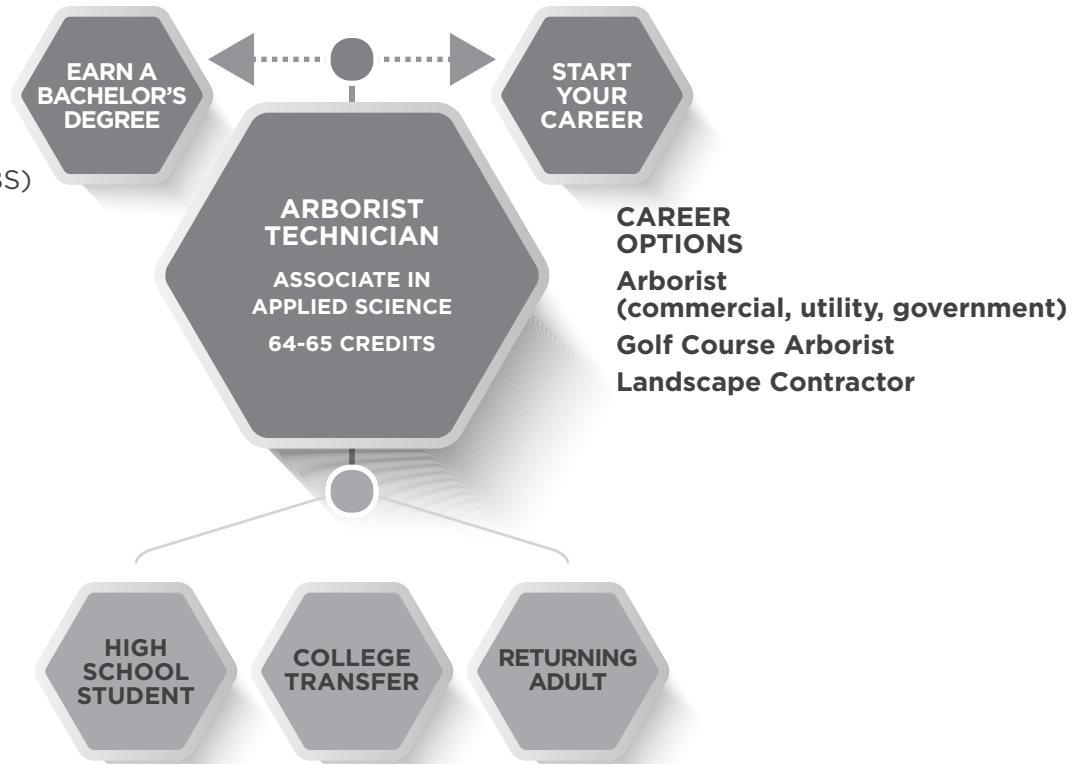
**WISCONSIN RAPIDS CAMPUS**  
500 32nd Street North  
Wisconsin Rapids, WI 54494

## BACHELOR'S DEGREE OPTIONS

UW-River Falls,  
Sustainable Management (BS)

UW-Stevens Point,  
Forestry (BS)

**For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).**



College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Agribusiness and Science Technology
- Farm Business & Production Management
- Farm Operation

### APPRENTICESHIP OPPORTUNITIES

- Arborist Apprenticeship



## PROGRAM OUTCOMES

Employers will expect you, as an Arborist Technician graduate, to be able to:

- Explain proper tree care to clients.
- Identify and diagnose tree diseases and pests.
- Identify trees by common and scientific name.
- Plant and maintain commercial and residential landscapes.
- Properly prune, plant, maintain, and remove trees and shrubs.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students are notified of TSA reporting in their final few courses of the program.

## TOOL AND EQUIPMENT KIT

While the College provides much of the equipment you'll be working with in the hands-on training, there are some items each student is personally responsible for.

Mid-State works with industry vendors to get discount prices on professional-grade tools. The equipment kit will cost approximately \$250-\$300. Students accepted into the program will get specific details about purchasing the equipment.

## NOTES:

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## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

## GPS for Student Success

**10890102 ..... 1 credit**  
Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

## Intro to College Reading

**10838104 ..... 2 credits**  
Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

## Intro to College Writing

**10831103 ..... 3 credits**  
Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.  
*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

## Pre-Algebra

**10834109 ..... 3 credits**  
Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.  
*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

<b>Term</b>	<b>17-18 credits</b>
10001118 Landscape Plant Identification	2
10001124 Arborist Skills Introduction	2
10001133 Chainsaw Safety and Operation	2
10001173 Urban Tree Maintenance	2
10801136 English Composition 1	3
10804107 College Mathematics	3
<b>-or-</b>	
10804118 Intermediate Algebra with Applications	4
10806184 Plant Biology	3
<b>Term</b> <span style="float: right;"><b>15 credits</b></span>	
10001102 Plant Health Care Applicator	2
10001110 Tree Biology	2
10001111 Intro to Horticulture	2
10001125 Arborist Skills 1	2
10001148 People, Resources, and Sustainability	3
10806134 General Chemistry	4
<b>Term</b> <span style="float: right;"><b>16 credits</b></span>	
10001104 Applied Landscape Architecture	2
10001105 Dendrology and Silvics	3
10001126 Arborist Skills 2	2
10001199 Intro to Fisheries, Forestry, & Wildlife Resources	3
10801196 Oral/Interpersonal Communication <b>-or-</b>	
10801198 Speech	3
10809166 Intro to Ethics: Theory & Application	3
<b>Term</b> <span style="float: right;"><b>16 credits</b></span>	
10001103 Applied Urban Forestry	2
10001113 Ornamental Plant Health Care	3
10001127 Arborist Skills 3	2
10001149 Ecological Basis for Natural Resource Management	3
10001198 Intro to Soil & Water Resources	3
10809188 Developmental Psychology <b>-or-</b>	
10809198 Intro to Psychology	3
<b>Total credits 64-65</b>	

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

<b>Term</b>	<b>9 credits</b>
10001124 Arborist Skills Introduction	2
10001133 Chainsaw Safety and Operation	2
10001173 Urban Tree Maintenance	2
10806184 Plant Biology	3
<b>Term</b> <span style="float: right;"><b>7-8 credits</b></span>	
10001110 Tree Biology	2
10001111 Intro to Horticulture	2
10804107 College Mathematics	3
<b>-or-</b>	
10804118 Intermediate Algebra with Applications	4
<b>Term</b> <span style="float: right;"><b>8 credit</b></span>	
10001118 Landscape Plant Identification	2
10001199 Intro to Fisheries, Forestry, & Wildlife Resources	3
10801136 English Composition 1	3
<b>Term</b> <span style="float: right;"><b>8 credits</b></span>	
10001102 Plant Health Care Applicator	2
10001125 Arborist Skills 1	2
10806134 General Chemistry	4
<b>Term</b> <span style="float: right;"><b>8 credit</b></span>	
10001126 Arborist Skills 2	2
10801196 Oral/Interpersonal Communication <b>-or-</b>	
10801198 Speech	3
10809188 Developmental Psychology <b>-or-</b>	
10809198 Intro to Psychology	3
<b>Term</b> <span style="float: right;"><b>9 credits</b></span>	
10001148 People, Resources, and Sustainability	3
10001149 Ecological Basis for Natural Resource Management	3
10001198 Intro to Soil & Water Resources	3
<b>Term</b> <span style="float: right;"><b>8 credits</b></span>	
10001104 Applied Landscape Architecture	2
10001105 Dendrology and Silvics	3
10809166 Intro to Ethics: Theory & Application	3
<b>Term</b> <span style="float: right;"><b>7 credits</b></span>	
10001103 Applied Urban Forestry	2
10001113 Ornamental Plant Health Care	3
10001127 Arborist Skills 3	2
10001139 Landscape & Turf Management II	2
<b>Total credits 64-65</b>	

# course descriptions

## Applied Landscape Architecture

**10001104.....2 credits**

Introduces the student to the landscape design process, a structured approach for shaping outdoor settings for human use and enjoyment. Develops skills in graphic techniques to communicate your landscaping ideas in plan drawings and sketches. Students gain experience in presenting ideas before large and small groups.

*Prerequisite: Landscape Plant Identification 10001118*

## Applied Urban Forestry

**10001103.....2 credits**

Students gain familiarity with several techniques, tools, and pieces of equipment used in the management of trees and tree populations. This course also serves to create an awareness of urban forestry careers as applied to commercial, municipal, and utility employers.

*Prerequisites: Urban Tree Maintenance 10001173 and Tree Biology 10001110*

## Arborist Skills 1

**10001125.....2 credits**

Emphasizes practice of skills associated with being safe & productive members of crews engaged in basic tree work/ arboricultural operations. Topics include introductory elements of pruning & removal techniques, equipment operations, & work site set-up.

*Prerequisite: Arborist Skills Introduction 10001124*

## Arborist Skills 2

**10001126.....2 credits**

Builds upon the skills & topics of Arborist Skills 1. Students will participate as safe & productive members of crews engaged in an intermediate level of arboricultural operations skills development.

*Prerequisite: Arborist Skills 1 10001125*

## Arborist Skills 3

**10001127.....2 credits**

Builds upon the skills & topics of Arborist Skills 2. Students will participate as safe & productive members of crews engaged in an advanced level of arboricultural operations skills development.

*Prerequisite: Arborist Skills 2 10001126*

## Arborist Skills Introduction

**10001124.....2 credits**

Introduction to the basic techniques, safety requirements, & equipment employed by arborists engaged in tree care operations. Topics include aerial tree work methods, industry safety standards, equipment operations, rope usage, risk recognition, & introductory tree biology.

## Chainsaw Safety and Operation

**10001133.....2 credits**

This course will familiarize students with common chainsaw practices employed within the arboriculture industry, including safe operation, routine maintenance, common cutting techniques, and use of personal protective equipment. Students will operate and maintain chainsaws. Additionally, field exercises will simulate tree removal operations.

## College Mathematics

**10804107.....3 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.*

## Dendrology and Silvics

**10001105.....3 credits**

Provides the student with an understanding of how trees interact with their environment and with one another, at different spatial and temporal scales. Builds on concepts from botany and ecology with an emphasis on woody plant systematics and silvics. Tree identification is a major component of this course.

*Prerequisite: Landscape Plant Identification 10001118*

## 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.*

## Ecological Basis for Natural Resource Management

**10001149.....3 credits**

Introduces the basic principles of ecology and their application to management of natural resources. The scientific method and interactions between and among species are examined. Lab exercises are designed to give hands-on experience with measurement and data collection, preparation of technical reports, use of library resources, use of computer models, and development of critical thinking skills.

*Prerequisite: Plant Biology 10806184*

## English Composition 1

**10801136 .....3 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.*

## General Chemistry

**10806134 ..... 4 credits**

Covers the fundamentals of chemistry. Topics include the metric system; problem solving; periodic relationships; chemical reactions, chemical equilibrium; properties of water; acids, bases, and salts; and gas laws. High School GPA of 3.0 or Accuplacer QAS of 246 or ACT of 19, and College Mathematics 10804107 with a "C" or better, or Intermediate Algebra with Applications 10804118 with a "C" or better. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.

## 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

**10809166 .....3 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 Fisheries, Forestry, & Wildlife Resources

**10001199 .....3 credits**

Provides an integrated introduction to principles and practices of fisheries, forestry, and wildlife management, including production of goods and services while maintaining ecosystem integrity and functions. Emphasizes contemporary issues.

## Intro to Horticulture

**10001111.....2 credits**

Provides an overview of the science and profession of horticulture. Its role and importance throughout history, current trends, and careers are covered. Particular attention is given to horticultural crops, plant growth, and plant development.

## Intro to Psychology

**10809198 .....3 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.*

## Intro to Soil & Water Resources

**10001198 .....3 credits**

Introduces the student to integrated concepts of soil and water resources at the landscape level. Examines physical, chemical, and biological interactions relating to watershed processes and response to land use and management.

*Prerequisite: Plant Biology 10806184; Corequisite: General Chemistry 10806134*

## Landscape Plant Identification

**10001118.....2 credits**

Introduces students to woody trees/shrubs and herbaceous plants commonly used in residential and commercial landscapes in Wisconsin. The three plant groups covered in this course are woody trees/shrubs, herbaceous perennial plants, and herbaceous annual plants. Identification, installation, and maintenance are covered for each plant group.

## 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 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.*

## Ornamental Plant Health Care

**10001113.....3 credits**

Classification and identification of important ornamental plant insects, diseases, and abiotic agents is presented, emphasizing their modes of plant damage. Diagnostics, damage assessment, sample preparation, and control strategies are introduced.

*Prerequisites: Landscape Plant Identification 10001118 and Plant Health Care Applicator 10001102*

## People, Resources, and Sustainability

### 10001148 .....3 credits

Explores the relationship between the human population and natural resources over time, and the effect this relationship has on the biosphere. Global resources, environmental concerns, and the human dimensions of resource management are explored from biological and socioeconomic perspectives.

## Plant Biology

### 10806184 .....3 credits

This lecture/laboratory course provides students with an in-depth study of the plant kingdom. The content includes, but is not limited to, plant cell anatomy and physiology, plant genetics, plant classification, plant anatomy and physiology, plant responses, plant life cycles, and ecology. A survey of viruses, prokaryotes, protista, and fungi as they pertain to plants is presented.

## Plant Health Care Applicator

### 10001102 .....2 credits

Focuses on training to successfully pass the Wisconsin Department of Agriculture and Consumer Protection's pesticide applicator exam (which will be proctored in this class). Additionally, students are familiarized with chemical handling, mixing, calibration, and application via field exercises.

## 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. 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.*

## Tree Biology

### 10001110 .....2 credits

This course provides an overview of the major structures and functions of woody plants. The overall objective is to provide a basic understanding of these complex organisms, equipping you with a solid foundation to diagnose myriad health & structural abnormalities you'll encounter. Major course themes include plant functions, physiology, adaptations, root systems, planting, & basic risk assessment.

## Urban Tree Maintenance

### 10001173 .....2 credits

Primarily focuses on the art and science of tree pruning. Young tree training and mature tree maintenance are practiced. Proper pruning cuts and techniques specified in the ANSI A300 Pruning Standard are taught throughout this course.



# automotive maintenance technician

## Technical Diploma Program Code: 31-404-3 Total Credits: 27

Mid-State's Automotive Maintenance Technician program prepares students for entry-level automotive repair work with special emphasis on mechanical relationships, basic engine performance, and suspension systems. You'll learn from industry experts to test and maintain basic automotive systems. You'll also apply the techniques you learn in the classroom to an automotive shop laboratory setting, with access to state-of-the-art hand and power tools and complex electrical diagnostic equipment. Graduates will have the confidence to start their careers in automotive repair facilities and retail service centers.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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**



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Adams, WI 53910

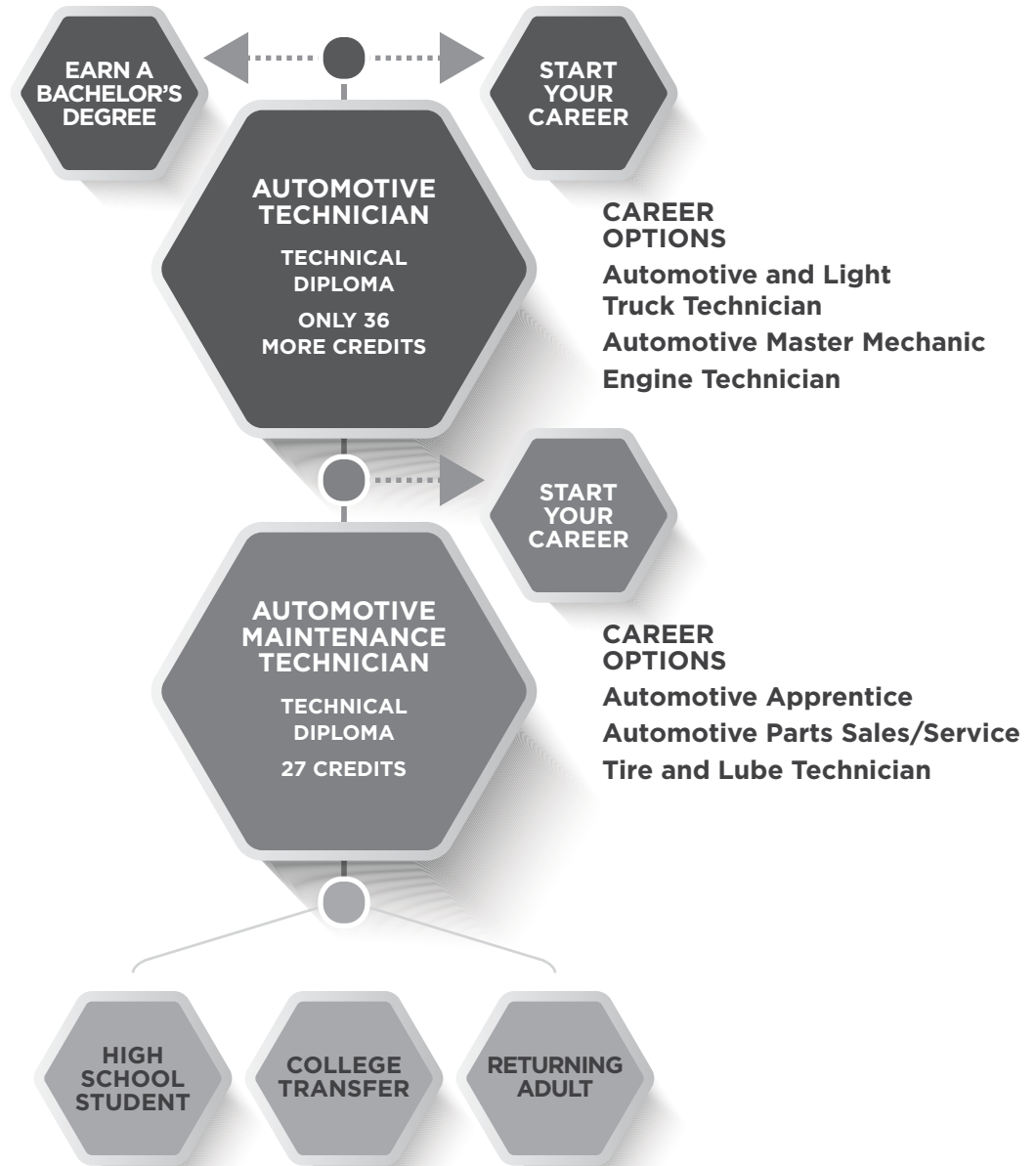
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Marshfield, WI 54449

**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

For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).



College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Diesel & Heavy Equipment Technician
- Diesel & Heavy Equipment Technician Assistant

## PROGRAM OUTCOMES

Employers will expect you, as an Automotive Maintenance Technician graduate, to be able to:

- Demonstrate professionalism appropriate to the auto service industry.
- Perform maintenance and light repair of automotive steering and suspension systems.
- Perform maintenance and light repair of automotive brake systems.
- Perform maintenance and light repair of automotive electrical and electronic systems.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students are notified of TSA reporting in their final few courses of the program.

## PROTECTIVE CLOTHING

Students are required to purchase three “Mid-State Automotive Technician Student” uniform shirts. These shirts are available the first week of class for approximately \$30 each. Students are also required to wear safety glasses at all times in the lab. Acquisition of safety glasses is the responsibility of the student.

## REQUIRED EQUIPMENT

Students need to purchase a Fluke 177 or Fluke 88V multimeter and test lead set before the start of the second term. These are available for purchase through the campus Bookstore for approximately \$270.

## NOTES:

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## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State’s student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State’s Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

**10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 .....2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 .....3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 .....3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of “S.” (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*



### SAMPLE FULL-TIME CURRICULUM OPTION

Term		14 credits
32404307	Suspension & Steering Systems	5
32404308	Braking Systems-Automotive	5
32404330	Applied Fluid Power	2
32404340	Intro to Electricity for the Automotive Industry	1
32404375	Service Practices in Automotive Industry	1

Term		13 credits
10442117	Welding Fundamentals 1	1
10442118	Welding Fundamentals 2	1
10457119	Fabrication Fundamentals 1	1
32404311	Electrical Systems-Auto	5
32404324	Engine Repair	5

**Total credits 27**

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](http://mstc.edu/classfinder).

### NOTES:

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### SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
32404308	Braking Systems-Automotive	5
32404340	Intro to Electricity for the Automotive Industry	1

Term		7 credits
32404307	Suspension & Steering Systems	5
32404330	Applied Fluid Power	2

Term		6 credits
32404375	Service Practices in Automotive Industry	1
32404311	Electrical Systems-Auto	5

Term		8 credits
10442117	Welding Fundamentals 1	1
10442118	Welding Fundamentals 2	1
10457119	Fabrication Fundamentals 1	1
32404324	Engine Repair	5

**Total credits 27**

## Applied Fluid Power

**32404330** .....2 credits

Learners employ basic principles and application of pumps, compressors, motors, valves, seals, packing, and conductors to demonstrate the advantage of hydraulic and pneumatic systems as well as the physical properties of liquids and air. The intent is to identify various parts of a circuit and to illustrate standard liquid power components through laboratory experiments.

*Prerequisite: Admission to Automotive Technician program 324042 or Automotive Maintenance Technician program 314043*

## Braking Systems-Automotive

**32404308** .....5 credits

Learners employ fundamentals of vehicle braking systems including drum, disc, hydraulic and air systems to perform on-vehicle repairs. Includes instruction on power and anti-skid systems with emphasis on troubleshooting and component replacement and reconditioning.

*Prerequisite: Admission to Automotive Technician program 324042 or Automotive Maintenance Technician program 314043*

## Electrical Systems-Auto

**32404311** .....5 credits

Learners employ principles of construction, function, and operation of starting motors, charging systems, and controls. Covers basic electronics, including capacitance, inductance, series and parallel circuits, magnetism and Ohm's Law, wiring schematics, soldering techniques, and use of diagnostic equipment. Vehicle control and accessory systems are studied.

## Engine Repair

**32404324** .....5 credits

Learners practice diagnosis, reconditioning and repair of cylinder heads, valve train components, and engine blocks and related components. Provides a general overview of engine types and operating characteristics. Covers engine support systems such as the lubrication systems, cooling system, ignition system, fuel and exhaust systems.

*Prerequisite: Admission to Automotive Technician program 324042 or Automotive Maintenance Technician program 314043*

## Fabrication Fundamentals 1

**10457119** ..... 1 credit

An introduction to structural shapes and sheet metal fabrication. Presents fabrication techniques, metal selection, and layout, cutting, bending, drilling, threading, and joining using manual equipment and techniques. Information is presented to the student and followed up with lab activities to provide a hands-on experience. Emphasizes developing an understanding of the tools, techniques, safe work habits, and application of sheet metal fabrication skills.

## Intro to Electricity for the Automotive Industry

**32404340** ..... 1 credit

Introduces learners to electrical measurement tools and techniques. Includes both hands-on experience and theory on topics including multimeter operation, Ohm's law, wiring diagram interpretation, and circuit testing. Content is focused on tools and procedures commonly used in automotive, and diesel/heavy equipment industries. Learners will have the opportunity to earn NC3 multimeter certification during this course.

*Prerequisite: Admission to Automotive Technician program 324042 or Automotive Maintenance Technician program 314043*

## Service Practices in Automotive Industry

**32404375** ..... 1 credit

Introduces the learner to common tools, terminology, and service practices in the transportation field. Covers safety, environmental concerns, and basic customer relations. Service shop management practices and the use of automated work order, parts ordering, and time management concepts are included.

*Prerequisite: Admission to Automotive Technician program 324042 or Automotive Maintenance Technician program 314043*

## Suspension & Steering Systems

**32404307** .....5 credits

Analyze construction and working principles of chassis components. Includes frames, suspension systems, steering gears and linkages, wheels and tires, and wheel alignment. Learners practice on-vehicle diagnosis and repair of suspension and steering systems.

*Prerequisite: Admission to Automotive Technician program 324042 or Automotive Maintenance Technician program 314043*

## Welding Fundamentals 1

**10442117** ..... 1 credit

An introduction to fundamental welding techniques with an emphasis on safe work habits that covers the processes of FCAW, GMAW, and OXY-Fuel cutting. Classroom instruction paired with lab activities are designed to provide fundamental skills in each of the welding processes covered in the class.

## Welding Fundamentals 2

**10442118** ..... 1 credit

An introduction to fundamental welding techniques with an emphasis on safe work habits that covers the processes of GTAW, SMAW and Plasma cutting. Classroom instruction paired with lab activities are designed to provide fundamental skills in each of the welding processes covered in the class.



# automotive technician

## Technical Diploma Program Code: 32-404-2 Total Credits: 63

Mid-State's Automotive Technician program gives students the experience and skills they need to diagnose and repair today's vehicles. The program emphasizes engine and transmission repair, the drive train and axles, suspension and steering systems, brakes, electrical systems, heating and air conditioning, and engine performance. You'll receive instruction from industry experts and have access to state-of-the-art equipment, including a variety of hand and power tools and complex electrical diagnostic equipment. Hands-on learning and opportunities to diagnose and repair cars for real customers will have you ready to enter the workforce with confidence.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://mstc.edu/programcosts)

### ACADEMIC ADVISOR

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### CHECKLIST:

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- 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: \_\_\_\_\_  
\_\_\_\_\_

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**MID-STATE**  
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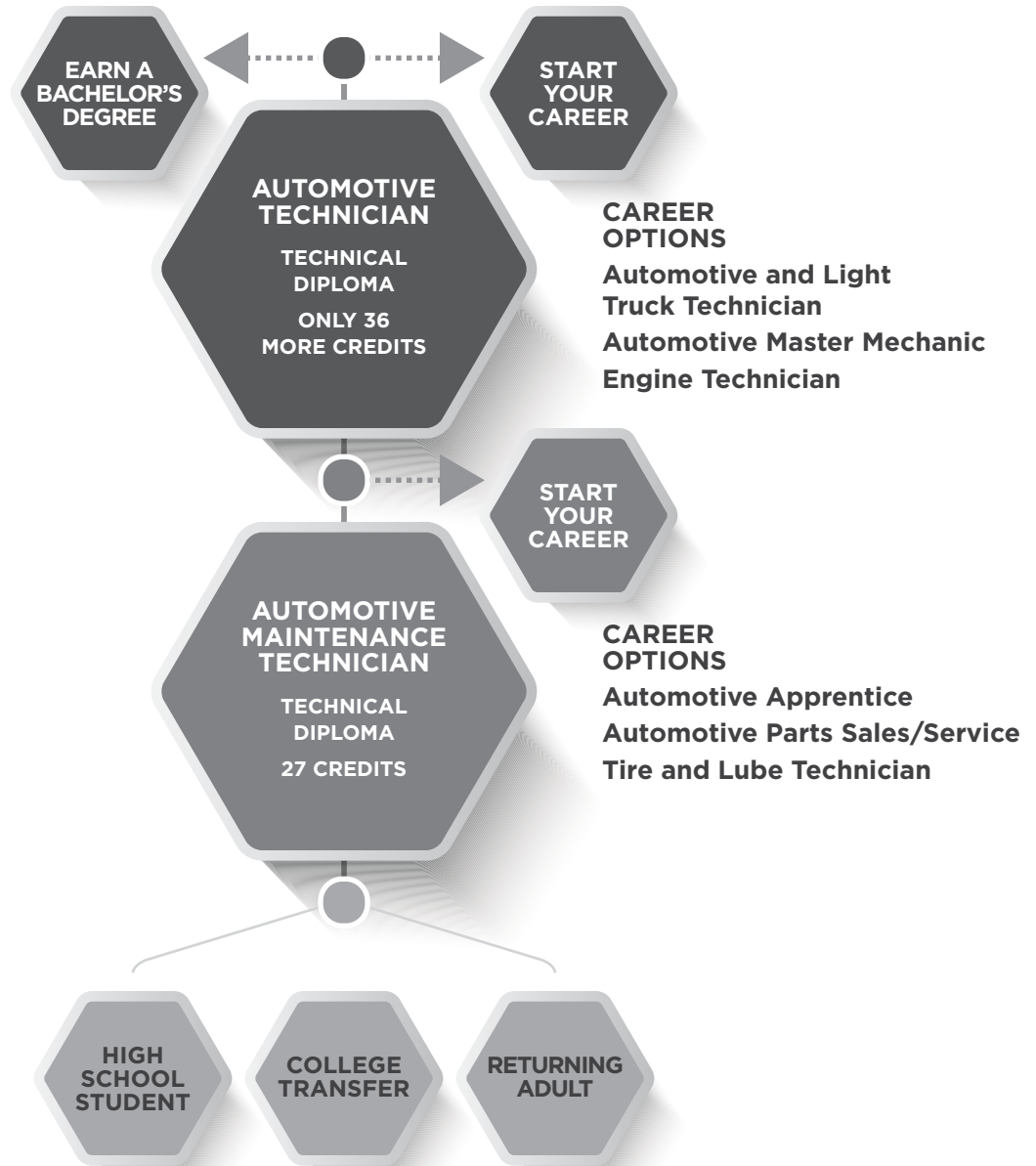
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**BEGIN AT ANY POINT  
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## OTHER OPTIONS

### RELATED PROGRAMS

- Diesel & Heavy Equipment Technician
- Diesel & Heavy Equipment Technician Assistant

## PROGRAM OUTCOMES

Employers will expect you, as an Automotive Technician graduate, to be able to:

- Demonstrate professionalism appropriate for the auto service industry.
- Perform diagnosis, service, and repair of automotive internal combustion engines.
- Perform diagnosis, service, and repair of automotive automatic transmission/transaxle systems.
- Perform diagnosis, service, and repair of automotive manual drive train and axle systems.
- Perform diagnosis, service, and repair of automotive steering and suspension systems.
- Perform diagnosis, service, and repair of automotive brake systems.
- Perform diagnosis, service, and repair of automotive electrical and electronic systems.
- Perform diagnosis, service, and repair of automotive heating and air conditioning systems.
- Perform diagnosis, service, and repair of automotive engine performance systems.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students are notified of TSA reporting in their final few courses of the program.

## PROTECTIVE CLOTHING

Students are required to purchase three “Mid-State Automotive Technician Student” uniform shirts. These shirts are available the first week of class for approximately \$30 each. Students are also required to wear safety glasses at all times in the lab. Acquisition of safety glasses is the responsibility of the student.

## REQUIRED EQUIPMENT

Students need to purchase a Fluke 177 or Fluke 88V multimeter and test lead set before the start of the second term. These are available for purchase through the campus Bookstore for approximately \$270.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State’s student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State’s Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

**10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 ..... 2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 ..... 3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 ..... 3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of “S.” (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
10804107	College Mathematics	3
32404307	Suspension & Steering Systems	5
32404308	Braking Systems-Automotive	5
32404375	Service Practices in Automotive Industry	1
32404340	Intro to Electricity for the Automotive Industry	1
Term		15 credits
10442117	Welding Fundamentals 1	1
10442118	Welding Fundamentals 2	1
10457119	Fabrication Fundamentals 1	1
32404311	Electrical Systems-Auto	5
32404324	Engine Repair	5
32404330	Applied Fluid Power	2
Term		18 credits
10102130	Career Development <b>-or-</b>	
10801199	Employment Strategies	3
10404101	Electronic Control System Programming	3
32404323	Automatic Transmissions	5
32404325	Manual Transmissions	5
32806351	Applied Science	2
Term		15 credits
32404312	Advanced Electrical Systems-Auto	5
32404320	Hybrid Systems-Auto	1
32404322	Heating/Air Conditioning	3
32404326	Fuel Control System-Auto	5
32404377	Business Practices in the Transportation Industry	1
<b>Total credits 63</b>		

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		11 credits
32404307	Suspension & Steering Systems	5
32404308	Braking Systems-Automotive	5
32404340	Intro to Electricity for the Automotive Industry	1
Term		13 credits
10442117	Welding Fundamentals 1	1
10442118	Welding Fundamentals 2	1
10457119	Fabrication Fundamentals 1	1
32404311	Electrical Systems-Auto	5
32404324	Engine Repair	5
Term		4 credits
10804107	College Mathematics	3
32404375	Service Practices in Automotive Industry	1
Term		10 credits
32404312	Advanced Electrical Systems-Auto	5
32404322	Heating/Air Conditioning	3
32404330	Applied Fluid Power	2
Term		15 credits
10102130	Career Development <b>-or-</b>	
10801199	Employment Strategies	3
32404323	Automatic Transmissions	5
32404325	Manual Transmissions	5
32806351	Applied Science	2
Term		10 credits
10404101	Electronic Control System Programming	3
32404320	Hybrid Systems-Auto	1
32404326	Fuel Control System-Auto	5
32404377	Business Practices in the Transportation Industry	1
<b>Total credits 63</b>		

## course descriptions

### Advanced Electrical Systems-Auto

**32404312** .....5 credits

Learners employ theory and operational fundamentals to diagnosis and repair of vehicle electronic/electrical systems, including computer self-diagnosis, scanners, analyzers, sensors, actuators, and computerized ignitions. Also covers diagnostic and repair procedures on major electrical-electronic emission control systems.

*Corequisite: Electrical Systems-Auto 32404311*

### Applied Fluid Power

**32404330** .....2 credits

Learners employ basic principles and application of pumps, compressors, motors, valves, seals, packing, and conductors to demonstrate the advantage of hydraulic and pneumatic systems as well as the physical properties of liquids and air. The intent is to identify various parts of a circuit and to illustrate standard liquid power components through laboratory experiments.

*Prerequisite: Admission to Automotive Technician program 324042 or Automotive Maintenance Technician program 314043*

# course descriptions

## Applied Science

### **32806351 .....2 credits**

This survey course in basic physics is designed for students in the Automotive Technician, Diesel & Heavy Equipment Technician, and Machine Tool Technician programs. Topics have been specially selected to provide students with basic support material for principles applied in the above listed programs. Topics to be covered include basic measurement skills; problem solving; motion; forces and energy transfer in linear and rotary systems; properties of solids, liquids and gases; temperature and heat; and basic DC electricity.

*Prerequisite: College Mathematics 10804107 with a grade of "C" or better.*

## Automatic Transmissions

### **32404323 .....5 credits**

Learners practice automatic transmission diagnosis and repair. Topics include gear systems, hydraulic and electronic control systems, transmission servicing, in vehicle repair, and out of vehicle transmission overhaul.

*Prerequisites: Electrical Systems-Auto 32404311 and Applied Fluid Power 32404330*

## Braking Systems-Automotive

### **32404308 .....5 credits**

Learners employ fundamentals of vehicle braking systems including drum, disc, hydraulic and air systems to perform on-vehicle repairs. Includes instruction on power and anti-skid systems with emphasis on troubleshooting and component replacement and reconditioning.

*Prerequisite: Admission to Automotive Technician program 324042 or Automotive Maintenance Technician program 314043*

## Business Practices in the Transportation Industry

### **32404377 .....1 credit**

Provides learners with hands on experience completing repair orders, customer service and parts management. Students will learn from instructors, local shop owners and professionals in the industry. Topics covered will include shop management, insurance and worker's compensation considerations, warranties, and pricing systems.

*Corequisite: Fuel Control System-Auto 32404326.*

## Career Development

### **10102130 .....3 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

### **10804107 .....3 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.*

## Electrical Systems-Auto

### **32404311 .....5 credits**

Learners employ principles of construction, function, and operation of starting motors, charging systems, and controls. Covers basic electronics, including capacitance, inductance, series and parallel circuits, magnetism and Ohm's Law, wiring schematics, soldering techniques, and use of diagnostic equipment. Vehicle control and accessory systems are studied.

## Electronic Control System Programming

### **10404101 .....3 credits**

Introduces learners to fundamental electronic control programming logic, terminology, and design. Learners practice basic programming and digital control techniques complete control tasks that are analogous to control tasks found in modern automobiles.

*Prerequisite: College Mathematics 10804107*

## Employment Strategies

### **10801199 .....3 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.

# course descriptions

## Engine Repair

**32404324 .....5 credits**

Learners practice diagnosis, reconditioning and repair of cylinder heads, valve train components, and engine blocks and related components. Provides a general overview of engine types and operating characteristics. Covers engine support systems such as the lubrication systems, cooling system, ignition system, fuel and exhaust systems.

*Prerequisite: Admission to Automotive Technician program 324042 or Automotive Maintenance Technician program 314043*

## Fabrication Fundamentals 1

**10457119..... 1 credit**

An introduction to structural shapes and sheet metal fabrication. Presents fabrication techniques, metal selection, and layout, cutting, bending, drilling, threading, and joining using manual equipment and techniques. Information is presented to the student and followed up with lab activities to provide a hands-on experience. Emphasizes developing an understanding of the tools, techniques, safe work habits, and application of sheet metal fabrication skills.

## Fuel Control System-Auto

**32404326 .....5 credits**

Learners identify and diagnose vehicle ignition systems, fuel systems, air induction systems, emission control systems, and engine electrical systems. Focuses on fault diagnosis, component testing, and repairs for domestic as well as import vehicles. Includes a review of engine operation and related servicing.

*Prerequisite: Admission to Automotive Technician program 324042 or Automotive Maintenance Technician program 314043*

## Heating/Air Conditioning

**32404322 .....3 credits**

Provides an introduction to vehicle air conditioning systems. System components, operating characteristics, component testing, diagnosis, and repair are covered in detail for popular system types. Includes servicing of engine cooling systems as well as diagnosis and servicing of vehicle heating systems.

*Prerequisite: Admission to Automotive Technician program 324042 or Diesel & Heavy Equipment Technician program 324121*

## Hybrid Systems-Auto

**32404320 ..... 1 credit**

Learners receive a general overview of hybrid vehicle systems, including motor, inverter, and CVT operation. Also provides an overview of hybrid safety requirements and demonstration of proper high voltage lockout procedures.

*Corequisites: Automatic Transmissions 32404323, Advanced Electrical Systems-Auto 32404312, and Fuel Control Systems-Auto 32404326*

## Intro to Electricity for the Automotive Industry

**32404340..... 1 credit**

Introduces learners to electrical measurement tools and techniques. Includes both hands-on experience and theory on topics including multimeter operation, Ohm's law, wiring diagram interpretation, and circuit testing. Content is focused on tools and procedures commonly used in automotive, and diesel/heavy equipment industries. Learners will have the opportunity to earn NC3 multimeter certification during this course.

*Prerequisite: Admission to Automotive Technician program 324042 or Automotive Maintenance Technician program 314043*

## Manual Transmissions

**32404325 .....5 credits**

Learners practice manual drivetrain fault diagnosis and repair. Topics includes clutch, drive shaft, and universal joint diagnosis and servicing. Additional topics include rear axle servicing and four-wheel drive diagnosis and repair.

*Corequisite: Automatic Transmissions 32404323*

## Service Practices in Automotive Industry

**32404375 ..... 1 credit**

Introduces the learner to common tools, terminology, and service practices in the transportation field. Covers safety, environmental concerns, and basic customer relations. Service shop management practices and the use of automated work order, parts ordering, and time management concepts are included..

*Prerequisite: Admission to Automotive Technician program 324042 or Automotive Maintenance Technician program 314043*

## Suspension & Steering Systems

**32404307 .....5 credits**

Analyze construction and working principles of chassis components. Includes frames, suspension systems, steering gears and linkages, wheels and tires, and wheel alignment. Learners practice on-vehicle diagnosis and repair of suspension and steering systems.

*Prerequisite: Admission to Automotive Technician program 324042 or Automotive Maintenance Technician program 314043*

## Welding Fundamentals 1

**10442117 ..... 1 credit**

An introduction to fundamental welding techniques with an emphasis on safe work habits that covers the processes of FCAW, GMAW, and OXY-Fuel cutting. Classroom instruction paired with lab activities are designed to provide fundamental skills in each of the welding processes covered in the class.

## Welding Fundamentals 2

**10442118 ..... 1 credit**

An introduction to fundamental welding techniques with an emphasis on safe work habits that covers the processes of GTAW, SMAW and Plasma cutting. Classroom instruction paired with lab activities are designed to provide fundamental skills in each of the welding processes covered in the class.





# barber technologist

## Technical Diploma

**Program Code: 30-502-5**

**Total Credits: 25**

The Barber Technologist program at Mid-State is a part-time program that gives students hands-on training in the techniques they need to thrive in barbering. Through a combination of online and face-to-face classes, as well as hours in Mid-State's on-campus salon, you'll learn both traditional and modern cutting and styling, safe use of common barber shop chemicals, and professional shaving techniques.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

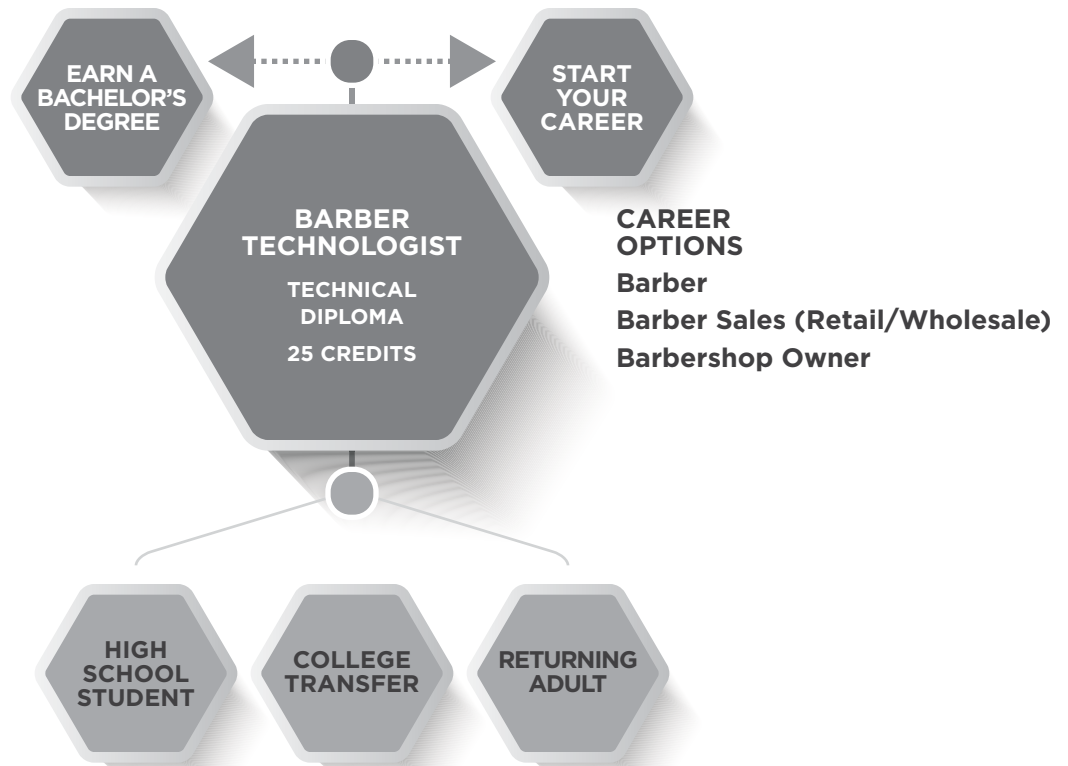
**MARSHFIELD CAMPUS**  
2600 West 5th Street  
Marshfield, WI 54449

**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

For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).



College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Cosmetology

## PROGRAM OUTCOMES

Employers will expect you, as a Barber Technologist graduate, to be able to:

- Apply safety and infection control procedures.
- Identify hair and scalp disorders.
- Perform haircutting services.
- Demonstrate shaving and other facial hair removal techniques.
- Perform male facial procedures.
- Perform texture services.
- Perform hair color services.
- Demonstrate hairstyling and finishing techniques.
- Adhere to the current Wisconsin administrative codes and statutes for barbers.
- Demonstrate interpersonal skills for success.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students will take a mock board exam in the Barber Master Services course to fulfill the TSA requirement..

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This program meets the Wisconsin state barbering requirement of 1,000 hours of training and is regulated by the Wisconsin Department of Safety and Professional Services. Federal regulations require programs for licensure to use clock hours in all areas of administering Title IV federal financial aid. Financial aid and scholarships are available to those who qualify.

Students must purchase a kit comprised of required tools and supplies. The cost of the kit is approximately \$1,100.

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## TECHNICAL STANDARDS

Students must have good fine motor skills, especially finger dexterity, as well as good hand/eye coordination and 20/40 vision in best eye with 70 degrees to each side for peripheral vision, as determined by the Department of Transportation.

## PROGRAM PROGRESSION

In order to progress in and successfully complete the program, students must repeat core courses (courses numbered 30-502-xxx) not completed with a grade of "C" or better prior to progressing in core courses or other courses with co- or prerequisites.

Please note that the ability to repeat courses is dependent upon availability of courses. Students may be required to apply for program re-entry in order to repeat courses.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

**10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 .....2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 .....3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 .....3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE PART-TIME CURRICULUM OPTION

Term	11 credits
30502701 Haircutting for Barbers	4
30502703 Introduction to the Barber Profession	2
30502706 Hairstyling for Barbers	2
30502730 Barber Services Skills	2
30502731 Barber Basic Hair & Scalp Services	1

Term	11 credits
30502702 Facial Hair & Skin Care Services for Barbers	2
30502704 Haircoloring for Barbers	2
30502705 Chemical Texturing for Barbers	2
30502722 Business Management for Barbers	1
30502737 Barber Basic Shaving Services	1
30502732 Barber Emerging Services	2
30502733 Barber Advanced Hair and Scalp Services	1

Term	3 credits
30502744 Barber Advanced Shaving Services	1
30502734 Barber Master Services	2

**Total credits 25**

Please Note:

- The Barber Technologist program is a part-time hybrid program.
- 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](http://mstc.edu/classfinder).

### NOTES:

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# course descriptions

## Barber Advanced Hair and Scalp Services

**30502733 ..... 1 credit**

In this course, students build on techniques learned in classroom and practiced in the salon, concentrating on advancing skills and proficiencies by providing client services performed by the barber. Emphasis is on hair and scalp analysis, shampooing, haircutting techniques, shaving, facial services, and hairstyling services. Students will apply knowledge and skills to provide all barber services on customers in the on-campus salon.  
*Corequisite: Barber Service Skills 30502730*

## Barber Advanced Shaving Services

**30502744 ..... 1 credit**

In this course, students build on techniques learned in classroom and practiced in the salon, concentrating on advancing skills and proficiencies by providing client services performed by the barber. Emphasis is on advanced shaving techniques while providing other services as required. Students will apply knowledge and skills to provide all barber services on customers in the on-campus salon.  
*Corequisite: Barber Service Skills 30502730*

## Barber Basic Hair & Scalp Services

**30502731 ..... 1 credit**

In this course, students explore client services performed by the barber. Emphasis is on hair and scalp analysis, shampooing, haircutting techniques, shaving, and hairstyling services. Students will apply knowledge and skills to provide all barber services on customers in the on-campus salon.  
*Corequisite: Barber Service Skills 30502730*

## Barber Basic Shaving Services

**30502737 ..... 1 credit**

In this course, students explore client services performed by the barber. Emphasis is on basic shaving services, but other services will also be practiced. Students will apply knowledge and skills to provide all barber services on customers in the on-campus salon.  
*Corequisite: Barber Service Skills 30502730*

## Barber Emerging Services

**30502732 ..... 2 credits**

This course students practice building speed and accuracy in client services performed by the barber. Emphasis is on shaving, haircutting techniques, and hairstyling services. Students apply knowledge and skills to provide all barber services on customers in the on-campus salon.  
*Corequisite: Barber Service Skills 30502730*

## Barber Master Services

**30502734 ..... 2 credits**

This course provides students with opportunities to master barbering skills in preparation for entry-level, licensed employment. Emphasis is on providing services with speed and accuracy, including hair and scalp analysis, shampooing, haircutting, shaving, facial services, and chemical services. Students apply knowledge and skills to provide all barber services on customers in the client lab and complete preparation for the Wisconsin State Barber licensing exam.  
*Corequisite: Barber Service Skills 30502730*

## Barber Services Skills

**30502730 ..... 2 credits**

This course promotes beginning-level developmental skills and proficiencies by providing a wide range of client-related services. Students will be performing proper business practices, client consultations, apply knowledge and skills to provide all barber services on customers in the on-campus salon. Emphasis is on hair and scalp analysis, shampooing, haircutting techniques, shaving, and hairstyling services.  
*Corequisites: Haircutting for Barbers 30502701, Introduction to the Barber Profession 30502703, and Hairstyling for Barbers 30502706*

## Business Management for Barbers

**30502722 ..... 1 credit**

This course includes business and management principles for barbers, barbering rules and regulations, and career strategies.  
*Prerequisite: Admission to Barber Technologist program 305025*

## Chemical Texturing for Barbers

**30502705 ..... 2 credits**

This course provides an overview of various wrap techniques, hair relaxing applications, reformation curls, and chemical blow-out services.  
*Prerequisite: Admission to Barber Technologist program 305025*

## Facial Hair & Skin Care Services for Barbers

**30502702 ..... 2 credits**

This course includes how to apply facial physiology and skin analysis in facial hair design, hair removal, facial massage, and facial treatment.  
*Prerequisite: Admission to Barber Technologist program 305025*

## Haircoloring for Barbers

**30502704 ..... 2 credits**

This course includes the theory and chemistry of color mixing as well as procedures including lightening, cap, foiling, and corrective color.  
*Prerequisite: Admission to Barber Technologist program 305025*

## Haircutting for Barbers

**30502701 ..... 4 credits**

This course introduces haircutting theory and terminology and provides students with practice in basic and advanced haircutting techniques as well as trend cuts.  
*Prerequisite: Admission to Barber Technologist program 305025*

## Hairstyling for Barbers

**30502706 ..... 2 credits**

This course emphasizes wet and dry hairstyling and includes hair analysis, shampooing, conditioning, reconditioning, scalp and hair treatments, blow drying, finger waves, pin curls, roller setting, thermal styling, and hair replacement techniques.  
*Prerequisite: Admission to Barber Technologist program 305025*

## Introduction to the Barber Profession

**30502703 ..... 2 credits**

This course provides an overview of the barbering profession, safety and decontamination in the barbershop, properties and disorders of the skin and scalp, and related science theory.  
*Prerequisite: Admission to Barber Technologist program 305025*



# business analyst

## Associate in Applied Science (AAS) Program Code: 10-102-1 Total Credits: 63-64

The Business Analyst associate degree is a two-year program that prepares individuals to work closely with stakeholders to identify business needs and offer opportunities for improvements in systems or workflow. The skills gained in this program are in demand within the industries of healthcare, IT, manufacturing, insurance, and finance. In this program you will research, analyze, and design solutions using business requirements and best practices. Through group projects you will develop and leverage leadership- and team-building tools using a variety of different collaboration methods.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

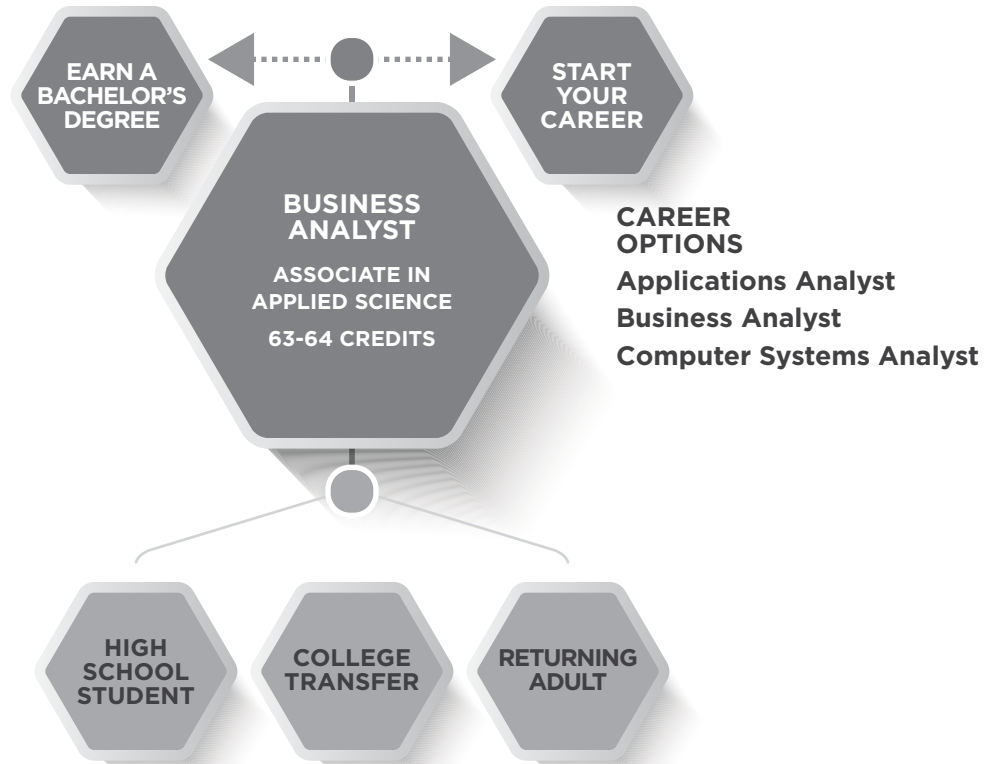
**STEVENS POINT CAMPUS**  
1001 Centerpoint Drive  
Stevens Point, WI 54481

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

## BACHELOR'S DEGREE OPTIONS

Lakeland University,  
Management Information  
Systems (BA)

**For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).**



College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- IT Computer Support Specialist
- IT Network Specialist
- IT Security Specialist
- IT Software Developer
- Microsoft System Administrator





**SAMPLE FULL-TIME CURRICULUM OPTION**

<b>Term</b>		<b>15 credits</b>
10102210	Business Analyst Essentials	3
10103106	Microsoft Office-Introduction	3
10196189	Team Building & Problem Solving	3
10801136	English Composition 1	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3

<b>Term</b>		<b>18-19 credits</b>
10102211	Business Analyst Fundamentals 1	3
10102213	Requirements Analysis	3
10102214	Continuous Improvement	3
10156101	Database Concepts and Design	3
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
10809172	Introduction to Diversity Studies	3

<b>Term</b>		<b>15 credits</b>
10102212	Business Analyst Fundamentals 2	3
10102216	Solutions Design	3
10156102	SQL Development	3
10196190	Leadership Development	3
10809103	Think Critically & Creatively	3

<b>Term</b>		<b>15 credits</b>
10102215	Business Analyst Fundamentals 3	3
10102220	Business Analyst Capstone	3
10196188	Project Management	3
10801197	Technical Reporting	3
10809188	Developmental Psychology <b>-or-</b>	
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](http://mstc.edu/classfinder).

**SAMPLE PART-TIME CURRICULUM OPTION**

<b>Term</b>		<b>9 credits</b>
10102210	Business Analyst Essentials	3
10196189	Team Building & Problem Solving	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3

<b>Term</b>		<b>9 credits</b>
10102211	Business Analyst Fundamentals 1	3
10102213	Requirements Analysis	3
10156101	Database Concepts and Design	3

<b>Term</b>		<b>6-7 credits</b>
10103106	Microsoft Office-Introduction	3
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
	<b>-or-</b>	
10804189	Introductory Statistics	3

<b>Term</b>		<b>9 credits</b>
10102212	Business Analyst Fundamentals 2	3
10102216	Solutions Design	3
10156102	SQL Development	3

<b>Term</b>		<b>9 credits</b>
10102214	Continuous Improvement	3
10196188	Project Management	3
10801197	Technical Reporting	3

<b>Term</b>		<b>6 credits</b>
10801136	English Composition 1	3
10809172	Introduction to Diversity Studies	3

<b>Term</b>		<b>9 credits</b>
10196190	Leadership Development	3
10809103	Think Critically & Creatively	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3

<b>Term</b>		<b>6 credits</b>
10102215	Business Analyst Fundamentals 3	3
10102220	Business Analyst Capstone	3

**Total credits 63-64**

## Business Analyst Capstone

**10102220 .....3 credits**

This course provides Business Analyst students the opportunity to integrate the knowledge they have obtained throughout their curriculum by demonstrating their proficiency during the entire life cycle of a project.  
*Corequisite: Business Analyst Fundamentals 2 10102212*

## Business Analyst Essentials

**10102210 .....3 credits**

Students learn a wide range of strategies to enhance their professional success as a business analyst, including business etiquette, professional image, ethical behavior, professional communication, time management, work ethic, multi-tasking, stress management, work place relationships, accountability, team building, problem solving, and leadership. The course also includes an introduction to the program outcomes and relates how the competencies of this course align to those outcomes.

## Business Analyst Fundamentals 1

**10102211 .....3 credits**

Students learn how to identify and define business needs while navigating diverse business structures. Project roles and responsibilities will be explored with an emphasis on effective communication within each level of the organization. Also examines the necessity of project vision, strategy, goals, objectives, and scope definition.  
*Prerequisite: Business Analyst Essentials 10102210*

## Business Analyst Fundamentals 2

**10102212.....3 credits**

Students will assess organizational readiness, and learn to identify, manage, and communicate with impacted resources for the success of a project. Students are introduced to change management principles. At the conclusion of this course, along with success with other courses in the program, students will be prepared to take the ECBA certification from IIBA.  
*Prerequisite: Business Analyst Fundamentals 1 10102211*

## Business Analyst Fundamentals 3

**10102215 .....3 credits**

Students create a communication plan to support ongoing collaboration and requirements validation. Explores methods used to communicate, verify, and validate requirements.  
*Prerequisite: Business Analyst Fundamentals 2 10102212*

## College Mathematics

**10804107 .....3 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.*

## Continuous Improvement

**10102214 .....3 credits**

Emphasizes using data to make sound business decisions. Students gain exposure to various tools used to assemble, organize, and manage data sets. Students further refine their skills in requirements documentation and validation by tracing and prioritizing solution requirements. Students also identify, measure, and validate solution requirements to support organizational change while complying with organizational standards.

*Prerequisite: Business Analyst Essentials 10102210*

## Database Concepts and Design

**10156101 .....3 credits**

Introduces the concepts of relational database design, development, and maintenance. Topics include relational normalization, referential integrity, and SQL.

*Corequisite: English Composition 1 10801136*

## 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.*

## English Composition 1

**10801136 .....3 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.*

## 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 Psychology

**10809198 .....3 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.*

## Introduction to Diversity Studies

**10809172.....3 credits**

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored.

*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.*

## Leadership Development

**10196190 .....3 credits**

Applies skills and tools necessary to fulfill his/her role as a modern leader. Each learner evaluates personal leadership effectiveness, use individual and group motivation strategies, implement mission and goals, demonstrate ethical behavior, adapt personal leadership style to worker readiness, use power, facilitate employee development, coach, manage change, and resolve conflict. Recommended Accuplacer scores - Reading 55, Sentence Skills 60, Arithmetic 34

## Microsoft Office-Introduction

**10103106 .....3 credits**

Develops introductory skills in the Microsoft Office Suite (Word, Excel, Access, PowerPoint, and Outlook) while reinforcing the students' knowledge of computer concepts, Windows Explorer, and web usage. Students should possess basic keyboarding, mouse and Windows 10 skills. Students may develop these skills in the LiNK while concurrently enrolled in this course.

## 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 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.*

## Project Management

**10196188.....3 credits**

Applies skills and tools necessary to design, implement, and evaluate formal projects. Each learner writes a project proposal, works with project teams, sequences project tasks, develops project budgets, identifies project resources, implements the project, charts project progress, deals with variations, evaluates the project, and uses various technology in these processes.

## Requirements Analysis

**10102213.....3 credits**

A practical course that provides an overview of the systems development life cycle and then focuses on the analysis phase of real-world computer and manual systems. Students learn concepts, techniques, and tools to aid in the analysis of existing systems, the identification of user requirements, and the design of database files. Emphasizes both written and oral communications. Most of the work is done in groups.

## Solutions Design

**10102216 .....3 credits**

Students assess organizational readiness by facilitating testing and training of the solution. Emphasizes test plan creation, execution, and facilitation as well as the development of training plans.

*Prerequisite: Requirements Analysis 10102213*

## 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. 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.*

## SQL Development

### **10156102 .....3 credits**

Expands on earlier courses with advanced SQL syntax (indexes, views, stored procedures, and triggers), database design, and data transformation. Additional topics include alternate database technologies, emerging database trends, and database administration and security. Data warehousing concepts are discussed.

*Prerequisite: Database Concepts and Design 10156101*

## Team Building & Problem Solving

### **10196189 .....3 credits**

Applies skills and tools necessary to facilitate problem solving in a team environment. Each learner assumes the roles and responsibilities of team leadership in the stages of team development, uses a systematic problem-solving process, and employs consensus-building and conflict-management strategies.

## Technical Reporting

### **10801197 .....3 credits**

The student prepares and presents oral and written technical reports. Types of reports may include lab and field reports, proposals, technical letters and memos, technical research reports, and case studies. Designed as an advanced communication course for students who have completed at least the prerequisite introductory writing course.

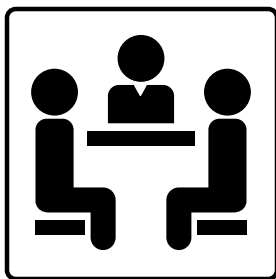
*Prerequisite: English Composition I 10801136 with a grade of "C" or better or Written Communication 10801195 with a grade of "C" or better. Proficiency in word processing skills recommended.*

## Think Critically & Creatively

### **10809103 .....3 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.*



# business management

## Associate in Applied Science (AAS) Program Code: 10-102-3 Total Credits: 63-65

Mid-State's Business Management program provides a broad business background that prepares individuals to work in middle management or run a business. Students develop general technical and interpersonal skills related to management, finance, operations, customer service management, ethics, and much more. Guest speakers, field trips, business tours, and professional organization presentations are combined with hands-on simulations, mock interviews, and projects for local businesses. Students may choose a specialization track, such as entrepreneurship or health care management.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

# career pathway

## BACHELOR'S DEGREE OPTIONS

Capella University,  
Business Management (BS)

Herzing University,  
Business Management (BS)

Lakeland University,  
Business Administration-  
Management Emphasis (BA)

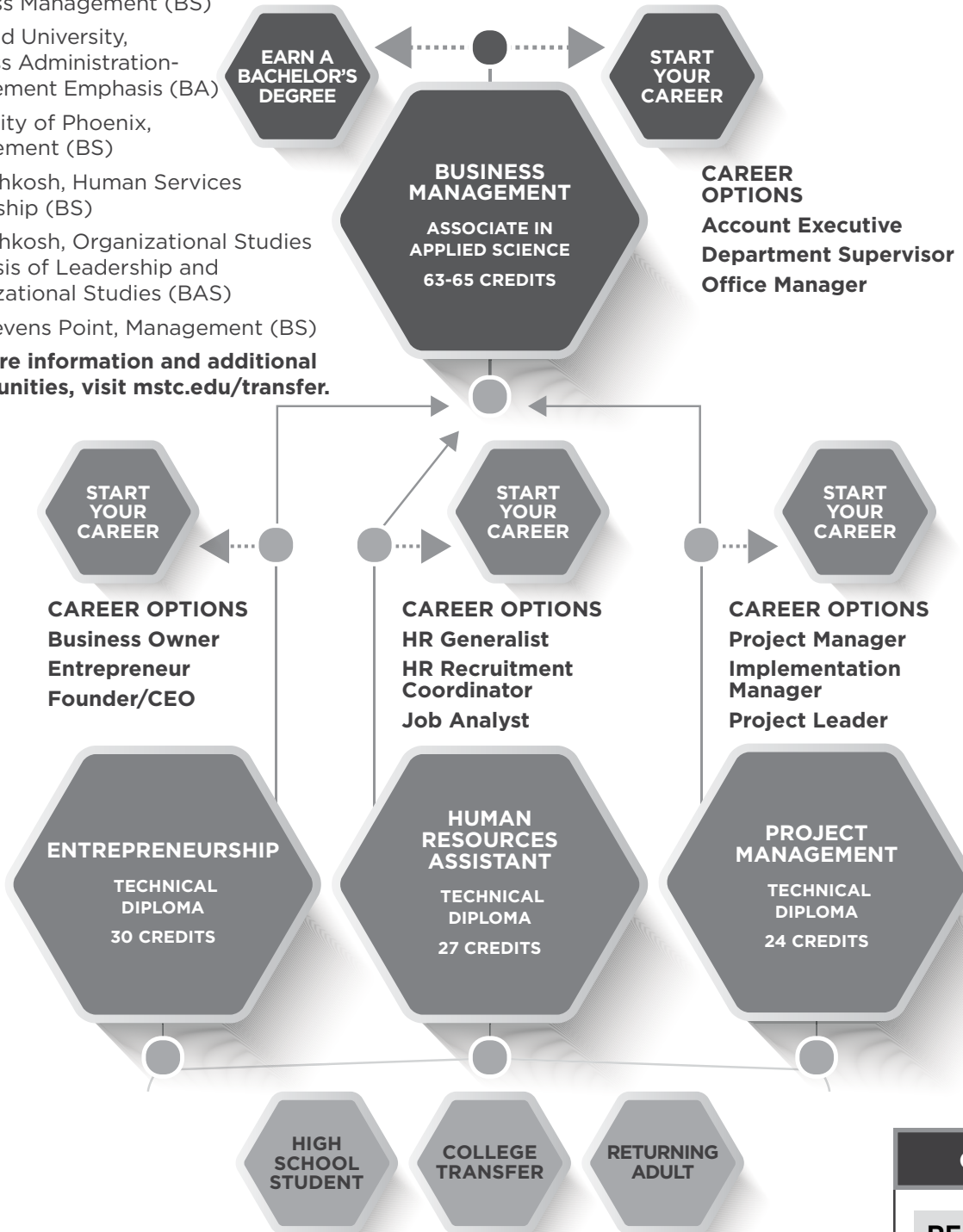
University of Phoenix,  
Management (BS)

UW-Oshkosh, Human Services  
Leadership (BS)

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

UW-Stevens Point, Management (BS)

**For more information and additional  
opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**College Credit • Dual Credit  
Military Experience • Work Experience**  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Administrative Professional
- Customer Relationship Professional
- Leadership Development
- Office Support Specialist

## PROGRAM OUTCOMES

Employers will expect you, as a Business Management graduate, to be able to:

- Plan the operations of a business across functional areas.
- Organize resources to achieve the goals of the organization.
- Direct individuals and/or processes to meet organizational goals.
- Control business processes.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Business Management program outcomes are measured in the TSA-designated course Business Decision Making.

## PROGRAM PROGRESSION

In order to maintain a passing status and progress in the program, students must:

- Receive a grade of “C” or better in the Business Decision Making course.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State’s student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State’s Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

**10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 ..... 2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 ..... 3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 ..... 3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of “S.” (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
10102101	Intro to Business	3
10103106	Microsoft Office-Introduction	3
10104102	Marketing Principles	3
10102138	Organizational Behavior	3
10801136	English Composition 1	3

Term		15-16 credits
10102110	Employment Law	3
10196191	Supervision	3
10196193	Human Resource Management	3
10801196	Oral/Interpersonal Communication -or-	
10801198	Speech	3
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
	<b>-or-</b>	
10804189	Introductory Statistics	3

Term		15-16 credits
10101111	Accounting I	4
	<b>-or-</b>	
10102121	Finance and Budgeting	3
10102104	Business Law	3
10102180	International Business	3
10196189	Team Building & Problem Solving	3
10809195	Economics	3

Term		18 credits
10102131	Entrepreneurial Management	3
10102160	Business Decision Making	3
10196188	Project Management	3
10196192	Managing for Quality	3
10809122	Intro to American Government -or-	
10809172	Introduction to Diversity Studies -or-	
10809196	Intro to Sociology	3
10809188	Developmental Psychology -or-	
10809198	Intro to Psychology	3

**Total credits 63-65**

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		9 credits
10102101	Intro to Business	3
10103106	Microsoft Office-Introduction	3
10104102	Marketing Principles	3

Term		9-10 credits
10101111	Accounting I	4
	<b>-or-</b>	
10102121	Finance and Budgeting	3
10102138	Organizational Behavior	3
10801136	English Composition 1	3

Term		9 credits
10196191	Supervision	3
10196193	Human Resource Management	3
10801196	Oral/Interpersonal Communication -or-	
10801198	Speech	3

Term		9-10 credits
10102104	Business Law	3
10102110	Employment Law	3
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
	<b>-or-</b>	
10804189	Introductory Statistics	3

Term		9 credits
10102180	International Business	3
10196189	Team Building & Problem Solving	3
10809195	Economics	3

Term		9 credits
10196188	Project Management	3
10196192	Managing for Quality	3
10809122	Intro to American Government -or-	
10809172	Introduction to Diversity Studies -or-	
10809196	Intro to Sociology	3

Term		9 credits
10102131	Entrepreneurial Management	3
10102160	Business Decision Making	3
10809188	Developmental Psychology -or-	
10809198	Intro to Psychology	3

**Total credits 63-65**



## Accounting I

**1010111..... 4 credits**

A beginning course designed especially for majors or those who need a strong foundation in accounting principles. Develops the accounting cycle of journaling, posting, adjusting, closing, and reporting. Also emphasizes service and merchandising sole proprietorships in developing the accounting cycle. Explores issues for accounting for cash, accounts and notes receivable, inventories, and fixed assets.

## Business Decision Making

**10102160 .....3 credits**

Develops skill to enable students to make individual decisions and participate in and facilitate group decisions in pursuit of the goals and objectives of an organization. Students analyze decision-making environments; employ a systematic decision-making process; use creative and analytic thinking tools for information gathering and analysis; employ ethical and social standards; contribute in group decision-making; and facilitate the group decision-making process.

*Prerequisites: Twelve Business Management 10-102 credits, Human Resources Management 10196193, and Supervision 10196191*

## Business Law

**10102104 .....3 credits**

Introduces the basic foundation of laws and regulatory systems applicable to the business environment. Students examine the UCC, contract torts, agency law, and business and cybercrime. Students apply business legal theory in conjunction with ethical decision making through practical application.

## College Mathematics

**10804107 .....3 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

**10809195 .....3 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 Law

**10102110 .....3 credits**

Introduces a broad scope of employment laws and provides the opportunity to apply these laws to the employment arena. Includes laws relating to anti-discrimination, including the Civil Rights Act, ADEA, and ADA; wage and hour regulation, including FLSA; employer-provided pensions, including ERISA; health insurance, including COBRA and ACA; and unemployment and worker's compensation insurance.

## English Composition 1

**10801136 .....3 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.*

## Entrepreneurial Management

**10102131 .....3 credits**

Introduces students to the concept of entrepreneurship. Learners study entrepreneurial practices primarily by developing a business plan for a venture of their choice. This includes comparing ways of going into business as well as developing marketing, legal, financial, products/ services, management, and operations plans for a small business of their choice. Entrepreneurial behavior within companies is examined.

*Prerequisite: Twelve Business Management 10-102 credits or twelve Supervisory Management 10-196 credits or a combination of Business Management 10-102 and Supervisory Management 10-196 credits that total twelve.*

## Finance and Budgeting

**10102121 .....3 credits**

For the nonfinancial manager, this course introduces the language of accounting, finance, and budgeting. Provides an overview of the use and analysis of financial statements. Business planning and the foundations and development of budgets are explored. Business financing basics and the securing of necessary financing for a business are covered. Practical application of financial statement creation and analysis, budgetary activities, and finance calculations are included.

## Human Resource Management

**10196193 .....3 credits**

Applies skills and tools necessary to perform human resource functions in an organization. Each learner demonstrates skill in following EEOC laws; writing job descriptions; recruiting, selecting, and orienting employees; developing policies and procedures; developing and conducting training; designing performance appraisal plans; developing employee development plans; and selecting compensation and benefit strategies.

## 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.*

## International Business

**10102180 .....3 credits**

Introduces topics concerning international business while illustrating its scope and importance. Topics include the impact of geography, trade protectionism, culture, legal structure, politics, and currency on business dealings. Students also research a particular country in depth.

## Intro to American Government

**10809122 .....3 credits**

Introduces American political processes and institutions. Focuses on rights and responsibilities of citizens and the process of participatory democracy. Learners examine the complexity of the separation of powers and checks and balances. Explores the role of the media, interest groups, political parties, and public opinion in the political process. Also explores the role of state and national government in our federal system.

*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 Business

**10102101 .....3 credits**

An introduction to what a business is, how it operates, and how it is managed. Students identify forms of ownership and the processes used in production and marketing, finance, personnel, and management in business operations.

## Intro to Psychology

**10809198 .....3 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.*

## Intro to Sociology

**10809196 .....3 credits**

Introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions of family, politics, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, and social organization.

*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.*

## Introduction to Diversity Studies

**10809172 .....3 credits**

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored.

*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

**10804189 .....3 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.*

## Managing for Quality

**10196192.....3 credits**

Apply skills and tools necessary to implement and maintain a continuous improvement environment. Each learner will demonstrate the application of a personal philosophy of quality, identify stakeholder relationships, identify ways to meet/exceed customer expectations, apply a systems-focused approach, use quality models and tools, manage a quality improvement project, and measure effectiveness of continuous improvement activities.

## Marketing Principles

**10104102 .....3 credits**

This course serves as an introduction to the fundamental marketing concepts used to apply marketing strategies to product development, distribution, pricing, and promotion of goods and services.

## Microsoft Office-Introduction

**10103106 .....3 credits**

Develops introductory skills in the Microsoft Office Suite (Word, Excel, Access, PowerPoint, and Outlook) while reinforcing the students' knowledge of computer concepts, Windows Explorer, and web usage. Students should possess basic keyboarding, mouse and Windows 10 skills. Students may develop these skills in the LiNK while concurrently enrolled in this course.

## 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 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.*

## Organizational Behavior

**10102138.....3 credits**

This course assists the learner in becoming a more effective co-worker, team member and organizational citizen through an understanding of the key principles of how people behave within organizations and in turn, predict and influence future behavior. As a result, the learner will analyze organizational structures, assess organizational culture, analyze leadership types and styles, apply conflict resolution strategies, explore power relationships, implement change management techniques, demonstrate effective team management and describe the ingredients of diversity as these aspects are related to people's behavior in organizations.

## Project Management

**10196188.....3 credits**

Applies skills and tools necessary to design, implement, and evaluate formal projects. Each learner writes a project proposal, works with project teams, sequences project tasks, develops project budgets, identifies project resources, implements the project, charts project progress, deals with variations, evaluates the project, and uses various technology in these processes.

## 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. 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.*

## Supervision

**10196191 .....3 credits**

Applies skills and tools necessary to perform the functions of a contemporary frontline leader. Students engage in operational planning, analyze organizational structures, review the staffing process, employ techniques to enhance employee personal and group effectiveness, and develop control techniques to measure effectiveness in the above areas.

## Team Building & Problem Solving

**10196189 .....3 credits**

Applies skills and tools necessary to facilitate problem solving in a team environment. Each learner assumes the roles and responsibilities of team leadership in the stages of team development, uses a systematic problem-solving process, and employs consensus-building and conflict-management strategies.



# central service technician

## Technical Diploma Program Code: 30-534-1 Total Credits: 17-20

Mid-State's hands-on Central Service Technician program prepares students to work with supplies and equipment related to surgery, obstetrics, emergency departments, and other patient care settings. Effective communication is vital within this multi-service area. The curriculum includes online instruction, lab, and clinical experience. The clinical portion of the course places students at a minimum of two sites. Students learn the principles of standard precautions, asepsis, disinfection, and sterilization procedures. Course completion leads to a technical diploma and eligibility for certification exams.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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
- Criminal Background Statement of Understanding and Release of Information Form
- Other: \_\_\_\_\_  
\_\_\_\_\_

**mstc.edu**  
**888.575.6782**



**ADAMS CAMPUS**  
401 North Main  
Adams, WI 53910

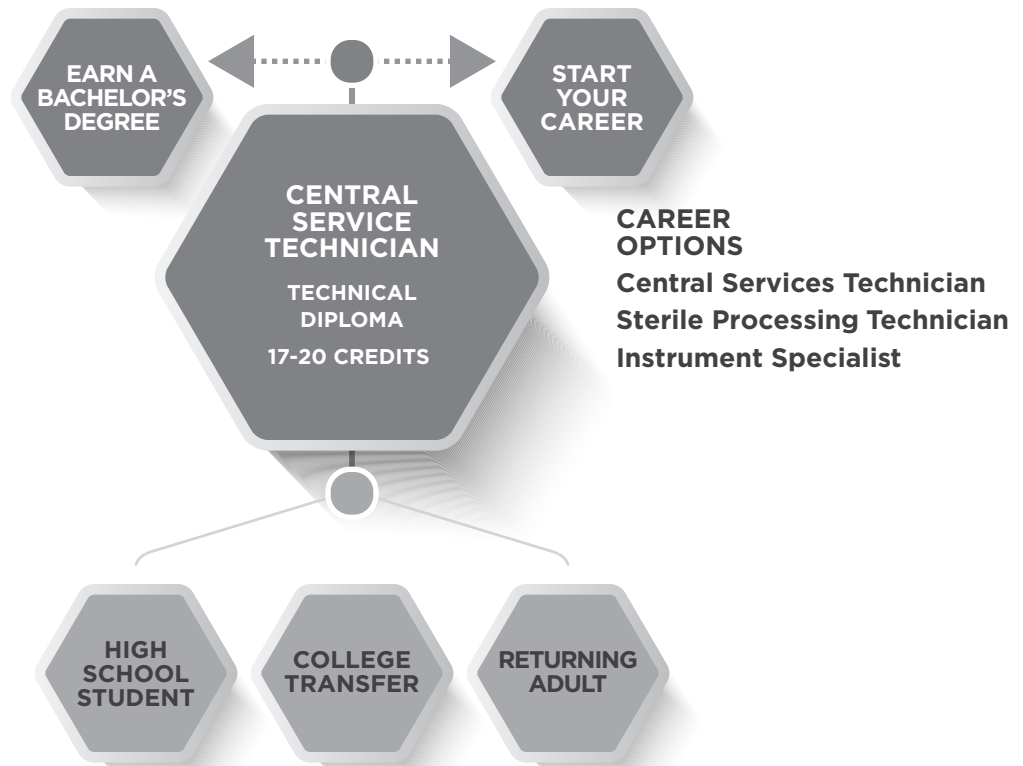
**MARSHFIELD CAMPUS**  
2600 West 5th Street  
Marshfield, WI 54449

**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

For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).



College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Health & Wellness Promotion
- Health Information Management
- Medical Assistant
- Medical Coder
- Nursing
- Nursing Assistant
- Pharmacy Services Management
- Pharmacy Technician
- Phlebotomy Technician
- Respiratory Therapy
- Surgical Technologist

## PROGRAM OUTCOMES

Employers will expect you, as a Central Service Technician graduate, to be able to:

- Apply principles of infection control in the role of the central service technician.
- Decontaminate instruments and equipment.
- Prepare instruments, equipment, and supplies.
- Apply sterilization techniques.
- Perform inventory control and distribution.
- Function as an ethical, legal, and professional member of the health care team.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students who successfully complete the skills demonstrations in the clinical courses will meet the TSA requirements.

## ADDITIONAL ENTRY CRITERIA

To apply to the Central Service Technician program, please submit the following document to Mid-State Admissions:

- Criminal Background Statement of Understanding and Release of Information form

**Mid-State Technical College • Admissions**  
500 32nd Street North  
Wisconsin Rapids, WI 54494

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as a central service technician is available at [mstc.edu/programs/central-service-technician](http://mstc.edu/programs/central-service-technician). Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## CLINICAL-RELATED REQUIREMENTS

Prior to placement at a clinical site, students need to pay for a criminal background check and provide documentation of required health work to a private vendor.

Students are responsible for ensuring all requirements remain current during program enrollment.

Clinical sites have the right to refuse a student's placement based on inadequate health records, pending charges, or conviction records. Students with a criminal history may not be able to complete clinical courses. Mid-State will make two attempts to place a student in an appropriate clinical experience. If Mid-State is unable to place the student after two attempts, the student will be withdrawn from the clinical course and will not be able to advance in the program.

## PROGRAM PROGRESSION AND COMPLETION

In order to maintain a passing status and progress in the program, students must:

- Repeat courses not completed with a grade of "C" or better prior to progressing in core courses or other courses with co- or prerequisites.
- Receive a grade of "C" or better in all courses required for graduation.

Please note that the ability to repeat courses is dependent upon availability in courses. Students may be required to apply for program re-entry in order to repeat courses within the program's instructional area.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## NOTES:

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## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

#### 10890102 ..... 1 credit

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

#### 10838104 ..... 2 credits

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

#### 10831103 ..... 3 credits

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

#### 10834109 ..... 3 credits

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		17-20 credit
10501101	Medical Terminology	3
10501107	Digital Literacy for Healthcare	2
10501109	Medical Law, Ethics, and Professionalism	2
30534301	Central Service	5
31509302	Human Body in Health and Disease	3
	<b>-or-</b>	
10806177	General Anatomy & Physiology	4
10806197	Microbiology	4
	<b>-or-</b>	
31806311	Applied Microbiology	2
		<b>Total credits 17-20</b>

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		8-9 credits
10501101	Medical Terminology	3
10501107	Digital Literacy for Healthcare	2
31509302	Human Body in Health and Disease	3
	<b>-or-</b>	
10806177	General Anatomy & Physiology	4
Term		9-11 credit
10501109	Medical Law, Ethics, and Professionalism	2
30534301	Central Service	5
10806197	Microbiology	4
	<b>-or-</b>	
31806311	Applied Microbiology	2
		<b>Total credits 17-20</b>

## Applied Microbiology

**31806311.....2 credits**

Directs the learner's understanding of aseptic techniques, antimicrobial methods, specimen collection, preparation of cultures, body defenses against microorganisms, the infectious process, and the transmission of disease-causing organisms. Students learn such techniques as standard and transmission-based precautions, sanitization, disinfection, sterilization, preparation of cultures, and microscopic slide preparations with simple staining and gram staining.

## Central Service

**30534301..... 5 credits**

Students are prepared with the knowledge and skills necessary to function as a central service technician. Central service is the hub of all activities involving supplies and equipment for surgery, obstetrics, emergency departments, and other patient care areas. Students learn the principles of standard precautions, asepsis, disinfection, and sterilization procedures. Effective communication is vital within this multi-service area. Central service is located in all health care facilities such as nursing homes, clinics, and hospitals. Patient interaction is minimal within this area of specialty. Online instruction, lab, and clinical experience are part of the curriculum. Upon graduation, students are eligible for certification exams. Students are responsible for transportation to and from classroom, lab, and clinical sites. A minimum of two clinical sites will be utilized in the clinical portion of this class.

*Prerequisite: Admission to Central Service Technician program 305341*

## Digital Literacy for Healthcare

**10501107 .....2 credits**

The focus of this course is the use of technology in healthcare. Learners use common business software applications, including word processing, presentation, spreadsheet, and databases. Communication methods using technology are addressed. Learners gain experience with using the electronic health record (EHR). Healthcare EHR security issues, social media use, and digital healthcare resources are examined.

## General Anatomy & Physiology

**10806177..... 4 credits**

Examines basic concepts of human anatomy and physiology as they relate to health sciences. Using a body systems approach, the course emphasizes the interrelationships between structure and function at the gross and microscopic levels of organization of the entire human body. It is intended to prepare health care professionals who need to apply basic concepts of whole body anatomy and physiology to informed decision making and professional communication with colleagues and patients.

*Prerequisite: High School GPA of 3.0 or Accuplacer Reading Skills of 236 or ACT of 15, or General Chemistry 10806134 with a grade of "C" or better, or General Biology 10806114 with a grade of "C" or better, or Human Body in Health & Disease 10509102 with a "C" or better. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.*

## Human Body in Health and Disease

**31509302 .....3 credits**

Focuses on diseases that are frequently first diagnosed and treated in the medical office setting. Students learn to recognize the causes, signs, and symptoms of diseases of the major body systems as well as the diagnostic procedures, usual treatment, prognosis and prevention of common diseases.

## Medical Law, Ethics, and Professionalism

**10501109 ..... 2 credits**

Prepares students to display professionalism and perform within ethical boundaries in the healthcare setting. Students maintain confidentiality, examine legal aspects of the medical record, perform risk management procedures, examine legal and bioethical issues, and demonstrate awareness of diversity.

## Medical Terminology

**10501101..... 3 credits**

Focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Learners practice formation, analysis, and reconstruction of terms. Emphasizes spelling, definition, and pronunciation. Introduces operative, diagnostic, therapeutic, and symptomatic terminology of all body systems as well as systemic and surgical terminology.

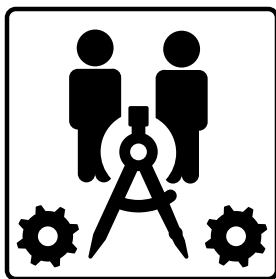
## Microbiology

**10806197..... 4 credits**

Examines microbial structure, metabolism, genetics, growth, and the relationship between humans and microorganisms. Disease production, epidemiology, host defense mechanisms, and the medical impact of microbes in the environment, industry, and biotechnology are also addressed.

*Prerequisite: General Anatomy & Physiology 10806177 with a "C" or better, or General Biology 10806114 with a "C" or better, or Plant Biology 10806184 with a grade of "C" or better*





# civil engineering technology-highway technician

## Associate in Applied Science (AAS)

**Program Code: 10-607-4**

**Total Credits: 68**

Mid-State's Civil Engineering Technology-Highway Technician program prepares students to work in the construction of public projects like roads, bridges, parking structures, and stormwater management systems. This important work also includes railroad, pipeline, power line, dam, canal, wastewater treatment facility, and airport construction. Through hands-on exercises and a capstone design project, you'll learn how to support the work of civil engineers, designers, surveyors, and city planners. You'll also receive training in surveying, soils, construction material testing, computer drafting, estimating, site design, mapping, and inspection procedures.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://www.fafsa.gov))
- Financial Aid Form(s)  
Form(s): \_\_\_\_\_
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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

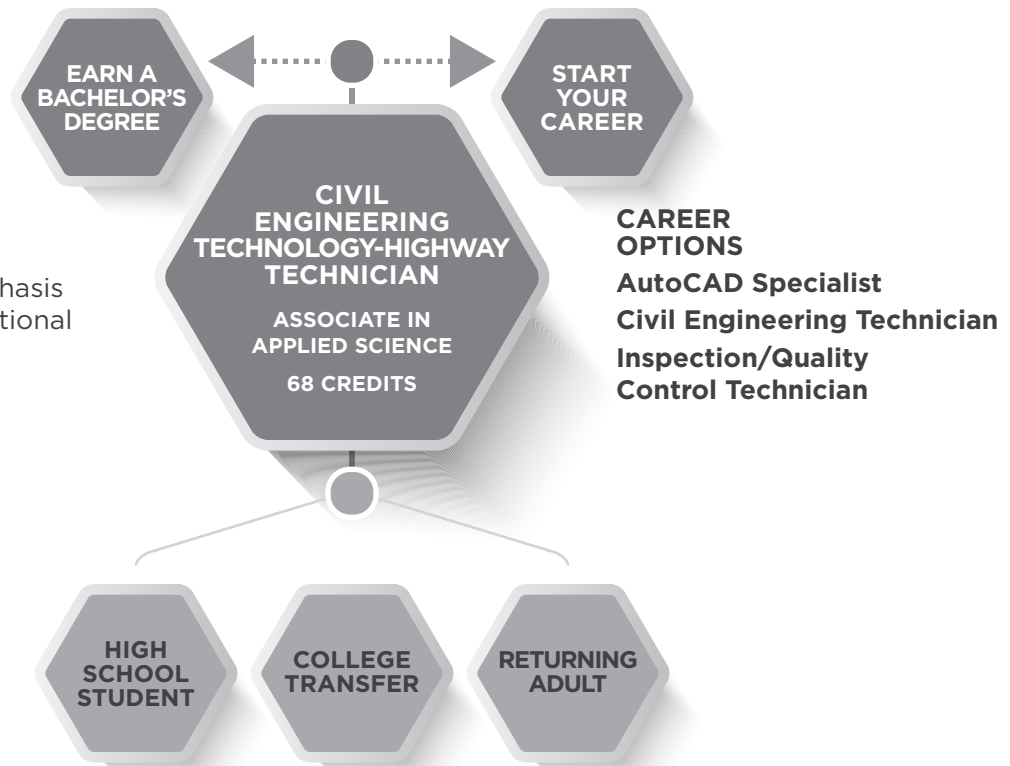
**WISCONSIN RAPIDS CAMPUS**  
500 32nd Street North  
Wisconsin Rapids, WI 54494

## BACHELOR'S DEGREE OPTIONS

Milwaukee School of Engineering (MSOE),  
Civil Engineering v. 3.3 (BS)

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

**For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**College Credit • Dual Credit • Military Experience • Work Experience**  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

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## OTHER OPTIONS

### RELATED PROGRAMS

- Electrical Power Engineering Technician
- Industrial Automation & Controls Engineering Technology



**SAMPLE FULL-TIME CURRICULUM OPTION**

<b>Term</b>		<b>16 credits</b>
10103123	Excel-Beginning	1
10607108	Intro to Civil 3D	1
10607145	Soils	3
10607155	Intro to Surveying	2
10623106	Intro to AutoCAD	1
10623115	Intro to Engineering	1
10801136	English Composition 1	3
10804118	Intermediate Algebra with Applications	4

<b>Term</b>		<b>17 credits</b>
10103124	Excel-Intermediate	1
10487101	Drones and Remote Sensing	1
10607110	Cemented Aggregate Mixtures	4
10607150	Civil Engineering Drafting I	3
10607156	Surveying - Total Station	3
10607167	Inspection	2
10804196	Trigonometry with Applications	3

<b>Term</b>		<b>18 credits</b>
10607117	GIS Fundamentals	2
10607118	Land Records	1
10607160	Civil Engineering Drafting II	2
10607170	Storm Water Management	3
10607171	Highway Surveying	2
10607174	GPS for Surveyors	2
10806143	College Physics 1	3
10809166	Intro to Ethics: Theory & Application <b>-or-</b>	
10809195	Economics	3

<b>Term</b>		<b>17 credits</b>
10607149	Highway Bridges, Medians, & Barriers	3
10607166	Construction Estimating & Management	3
10607180	Civil Engineering Capstone	2
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
10804195	College Algebra with Applications	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3

**Total credits 68**

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](http://mstc.edu/classfinder).

**SAMPLE PART-TIME CURRICULUM OPTION**

<b>Term</b>		<b>9 credits</b>
10607108	Intro to Civil 3D	1
10607155	Intro to Surveying	2
10623106	Intro to AutoCAD	1
10623115	Intro to Engineering	1
10804118	Intermediate Algebra with Applications	4

<b>Term</b>		<b>11 credit</b>
10607150	Civil Engineering Drafting I	3
10607156	Surveying - Total Station	3
10607167	Inspection	2
10804196	Trigonometry with Applications	3

<b>Term</b>		<b>7 credits</b>
10103123	Excel-Beginning	1
10607145	Soils	3
10801136	English Composition 1	3

<b>Term</b>		<b>8 credits</b>
10103124	Excel-Intermediate	1
10487101	Drones and Remote Sensing	1
10806143	College Physics 1	3
10809166	Intro to Ethics: Theory & Application <b>-or-</b>	
10809195	Economics	3

<b>Term</b>		<b>7 credits</b>
10607160	Civil Engineering Drafting II	2
10607170	Storm Water Management	3
10607171	Highway Surveying	2

<b>Term</b>		<b>10 credits</b>
10607110	Cemented Aggregate Mixtures	4
10607166	Construction Estimating & Management	3
10804195	College Algebra with Applications	3

<b>Term</b>		<b>8 credits</b>
10607117	GIS Fundamentals	2
10607118	Land Records	1
10607174	GPS for Surveyors	2
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3

<b>Term</b>		<b>8 credits</b>
10607149	Highway Bridges, Medians, & Barriers	3
10607180	Civil Engineering Capstone	2
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3

**Total credits 68**

## Cemented Aggregate Mixtures

**10607110 ..... 4 credits**

WisDOT standard tests and procedures are performed on aggregates, hot mix asphalt, and concrete in a lab environment. The behavior that results from material selection and mixture proportioning is evaluated through test results. Learners will design hot mix asphalt and concrete mixtures within WisDOT design parameters. HTPC certification is encouraged after completion of the course.  
*Corequisite: Intermediate Algebra with Applications 10804118*

## Civil Engineering Capstone

**10607180 .....2 credits**

This capstone class is a project-based learning experience that allows students to integrate and demonstrate their civil engineering drafting, design, and survey skills by applying them to a specific engineering problem. Students collaborate in teams to apply their problem-solving and technology skills to a design experience. Working in collaboration with a faculty member, students plan, produce, document and present quality engineering designs. Students should be in their last semester of the Civil Engineering Technology program to enroll in this class.  
*Prerequisites: Civil Engineering Drafting II 10607160, Storm Water Management 10607170, and Highway Surveying 10607171*

## Civil Engineering Drafting I

**10607150 .....3 credits**

Students will use survey data to create and analyze existing ground surface models in Civil 3D. Students will also learn basic and advanced corridor modeling methods, create cross sections, analyze earthwork volumes, and apply dynamic annotation in order to produce construction drawings.  
*Prerequisite: Intro to Civil 3D 10607108*

## Civil Engineering Drafting II

**10607160 .....2 credits**

Expands on topics learned in Civil Engineering Drafting I. Topics covered include site layout and modeling, as well as sanitary sewer, water main, and dry utility layout and modeling.  
*Prerequisite: Civil Engineering Drafting I 10607150*

## College Algebra with Applications

**10804195 .....3 credits**

Covers the skills needed for success in calculus and many application areas on a baccalaureate level. Topics include the real and complex number systems, polynomials, exponents, radicals, solving equations and inequalities (linear and nonlinear), relations and functions, systems of equations and inequalities (linear and nonlinear), matrices, graphing, conic sections, sequences and series, combinatorics, and the binomial theorem.  
*Prerequisite: Trigonometry with Applications 10804196 with a grade of "C" or better or Intermediate Algebra with Applications 10804118 with a grade of "C" or better. Students without Trigonometry with Applications are encouraged to bring transcripts for individual course evaluation.*

## Construction Estimating & Management

**10607166 .....3 credits**

Presents goals and performance of quantity takeoff, cost estimation, and contract interpretation. Project bidding, construction techniques, and equipment capabilities are evaluated.

*Prerequisites: Excel-Intermediate 10103124, Intermediate Algebra with Applications 10804118, and Intro to AutoCAD 10623106*

## 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.*

## Drones and Remote Sensing

**10487101 ..... 1 credit**

This course will explore topics included in the Section 107 Drone Pilot License exam, as well as drone and remote sensing applications in the civil engineering industry. Students will have the opportunity to fly drones in order to capture data for use in engineering design.

*Corequisite: Civil Engineering Drafting I 10607150*

## Economics

**10809195 .....3 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.*

## English Composition 1

**10801136 .....3 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.*

# course descriptions

## Excel-Beginning

**10103123..... 1 credit**

Students learn to create, modify, and format spreadsheets, charts, and graphics. Students also learn to perform calculations and analysis on data.

## Excel-Intermediate

**10103124 ..... 1 credit**

Students learn to summarize and analyze large data sets. Some of Excel's data tools and what-if tools are applied.

*Prerequisite: Microsoft Office-Introduction 10103106 or Excel-Beginning 10103123*

## College Physics 1

**10806143 .....3 credits**

Presents the applications and theory of basic physics principles. This course emphasizes problem solving, laboratory investigation and applications. Topics include laboratory safety, unit conversions and analysis, kinematics, dynamics, work, energy, power, temperature and heat.

*Corequisite: Trigonometry with Applications 10804196*

## GIS Fundamentals

**10607117 .....2 credits**

An introduction to geographic information systems (GIS) and how they are used to document and convey information that has a spacial component. Students use GIS software to create, manipulate, and present geographic information.

## GPS for Surveyors

**10607174.....2 credits**

A GNSS surveying instrument and data collector are operated to collect field data and perform construction staking. Learners will explain the GNSS system and diagnose problems with data collection and use the data collector to analyze field data and create linework for stakeout.

*Prerequisites: Intro to Surveying 10607155, Intro to Civil 3D 10607108.*

## Highway Bridges, Medians, & Barriers

**10607149 .....3 credits**

Studies the processes, considerations, and safety aspects of constructing and maintaining highway bridges, medians, and barriers. Includes investigation of structural loads, stress factors, and valid design procedures for these critical components of today's modern roads and highways.

*Prerequisite: Highway Surveying 10607171; Corequisite: Inspection 10607167*

## Highway Surveying

**10607171 .....2 credits**

Learners will explain the geometry of horizontal curves, vertical curves and super elevation with consideration of WISDOT design requirements. Civil 3D and spreadsheet software are used to model basic curves and produce reports from the software that could be used for construction staking. Learners will also perform calculations manually in preparation for the NSPS-CST exam.

*Prerequisites: Intro to Surveying 10607155, Civil Engineering Drafting I 10607150; Corequisite: Trigonometry with Applications 10804196*

## Inspection

**10607167.....2 credits**

Concerns construction inspection and its importance, the role of the inspector, requirements for a good inspector, and general duties of the inspector. Emphasizes concrete and asphalt inspection.

*Prerequisite: Intro to Surveying 10607155*

## 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 AutoCAD

**10623106 ..... 1 credit**

Learners will develop practical approaches to constructing basic 2D drawings in AutoCAD software by drawing, modifying, and assigning appropriate layer properties. Learners will also analyze length and area of shapes drawn in AutoCAD, summarize details through dimensions and annotations added to the drawings, and format the drawings for printing. Prior experience with computers is recommended.

## Intro to Civil 3D

**10607108 ..... 1 credit**

This introductory course in Civil 3D covers basic two-dimensional drafting concepts, including the layout of roads and parcels in a subdivision. Alignments, parcels, and dynamic labels will be created and explored using Civil 3D software.

*Corequisite: Intro to AutoCAD 10623106*

## Intro to Engineering

**10623115..... 1 credit**

Mathematical solutions are arranged through dimensional analysis, and this process is applied to a variety of engineering situations. Life cycle cost is evaluated to determine the cost effectiveness in decision making. Practical applications will enhance these fundamentals.

*Corequisite: Intermediate Algebra w/Apps 10804118 or consent of instructor*

## Intro to Ethics: Theory & Application

**10809166 .....3 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 Psychology

**10809198 .....3 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.*

## Intro to Surveying

**10607155 .....2 credits**

Learners will use basic surveying instruments to measure/estimate horizontal lengths, an automatic level to determine elevation, and research survey data online. Resolve measurement errors and report results in appropriate formats. Create cross section and profile views from survey data.

*Corequisite: Intermediate Algebra with Applications 10804118*

## Land Records

**10607118 .....1 credit**

Interpret land documents, including various types of property descriptions, Certified Survey Maps, and USGS maps. Interconvert azimuth, bearing, and turned angles. Assess evidence for corner restoration and research a local survey document.

*Prerequisite: Civil Engineering Drafting I 10607150, Survey-Total Station 10607156*

## 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 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.*

## Soils

**10607145 .....3 credits**

Studies the general classification and properties of soil and subsurface materials. Includes subsurface exploration soil tests and hydraulic principles as used in the field of civil engineering. Laboratory techniques are developed for testing and classifying soil and aggregate.

*Corequisite: Intermediate Algebra with Applications 10804118*

## 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. 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.*

## Storm Water Management

**10607170 .....3 credits**

Emphasizes storm water management, calculations, planning, and design. Topics include open channel and pressure flow, storage and treatment facility design concepts, and regulation, permitting, and enforcement of sanitary and storm water ordinances.

*Prerequisite: Civil Engineering Drafting I 10607150; Corequisite: Trigonometry with Applications 10804196*

## Surveying - Total Station

**10607156 .....3 credits**

Learners will operate a robotic total station and data collector to collect field data and perform construction staking. Civil 3D software is used to interpret field data, solve survey calculations, and convey plat information. Learners will manually perform calculations to confirm data collector solutions and to prepare for the written NSPS-CST exam. Learners will perform a traverse and adjust the results.

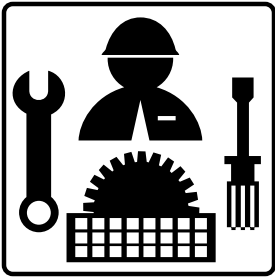
*Prerequisites: Intro to Surveying 10607155, Intro to Civil 3D 10607108. Corequisite: Trigonometry with Applications 10804196 and Civil Engineering Drafting I 10607150*

## Trigonometry with Applications

**10804196 .....3 credits**

Topics include circular functions, graphing of trigonometry functions, identities, equations, trigonometric functions of angles, inverse functions, solutions of triangles, complex numbers, DeMoivre's Theorem, polar coordinates, and vectors.

*Prerequisite: Intermediate Algebra with Applications 10804118 with a grade of "C" or better. Students without Intermediate Algebra with Applications are encouraged to bring transcripts for individual course evaluation.*



# construction trades

## Technical Diploma

**Program Code: 30-475-1**

**Total Credits: 12**

Mid-State's Construction Trades technical diploma provides the foundation knowledge and experience to get started in the construction, carpentry, plumbing, electrical, and pipefitting fields. Graduates understand the various components of building construction systems as well as proper and safe tool use and installation techniques for piping, heating, and electrical systems. Successful completion of the diploma prepares students for an entry-level position in the construction trades industry. The program includes work in an interactive hands-on lab and a year-round larger lab complete with an "indoor house." Through exposure to multiple fields and industries, graduates are prepared to enter the trade they choose.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

#### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

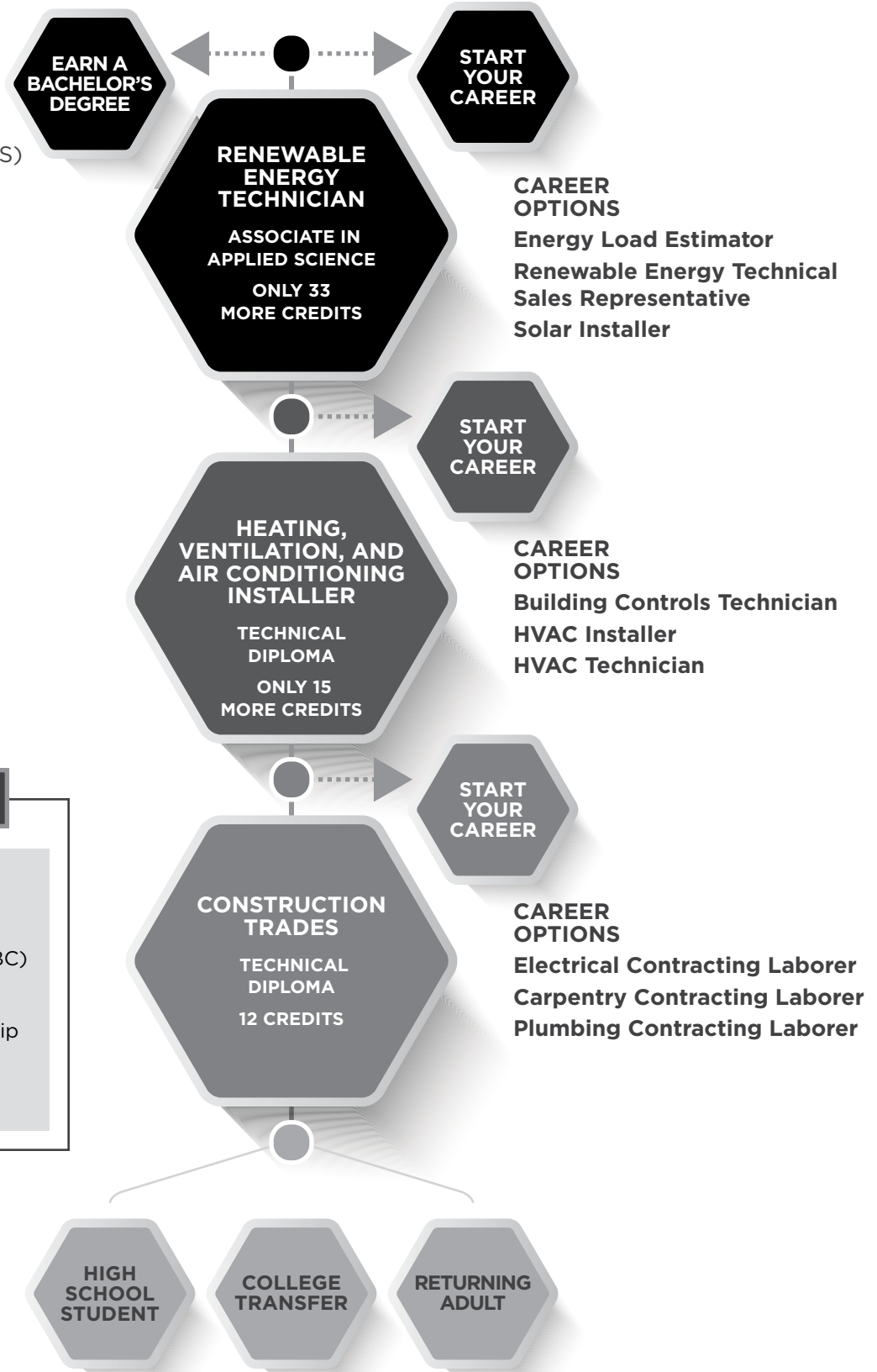
**WISCONSIN RAPIDS CAMPUS**  
500 32nd Street North  
Wisconsin Rapids, WI 54494



**BACHELOR'S DEGREE OPTIONS**

UW-River Falls,  
Sustainable Management (BS)

For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).



**OTHER OPTIONS**

**APPRENTICESHIP OPPORTUNITIES**

- Carpenter Apprenticeship
- Construction Electrician (ABC) Apprenticeship
- Construction Electrician (IBEW-NECA) Apprenticeship
- Plumber Apprenticeship
- Steamfitter and Steamfitter Service Apprenticeship

College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

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## SAMPLE FULL-TIME CURRICULUM OPTION

Term		12 credits
10442117	Welding Fundamentals 1	1
10476170	OSHA 30 for the Construction Trades	2
10482107	Construction Fundamentals	2
10483121	Piping Applications	3
10601130	Blueprint Reading for Construction Trades	2
10601140	Electricity for the Construction Trades	2
<b>Total credits</b>		<b>12</b>

### 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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		5 credits
10442117	Welding Fundamentals 1	1
10476170	OSHA 30 for the Construction Trades	2
10482107	Construction Fundamentals	2
<b>Term</b>		<b>7 credits</b>
10483121	Piping Applications	3
10601130	Blueprint Reading for Construction Trades	2
10601140	Electricity for the Construction Trades	2
<b>Total credits</b>		<b>12</b>

## course descriptions

### Blueprint Reading for Construction Trades

#### 10601130 .....2 credits

Develops the ability to read blueprints for commercial and non-commercial structures. Emphasizes blueprints drawn by licensed architects, covering plumbing, electrical wiring, structural framing, millwork, interior and exterior details, and basic information.

### Construction Fundamentals

#### 10482107 .....2 credits

Studies the concepts associated with the theory, materials, and methods used in construction, including footings and foundations, walls, floors, roofs and roof materials, exterior finishes, interior walls, ceiling and floor finishes, insulation types, vapor and air infiltration, and sound protection. Students also become familiar with blueprint reading and examine all trades associated with construction, including, electrical, HVAC, and plumbing. Safe use of the appropriate tools for each trade is covered.

### Electricity for the Construction Trades

#### 10601140 .....2 credits

This course is an introduction to electrical theory and application for those in the construction and building trades. Content includes AC and DC circuits, schematics, Ohms law, multimeter use and circuit troubleshooting. This course will also provide an introduction to the contents of the National Electric Code (NEC).

### OSHA 30 for the Construction Trades

#### 10476170 .....2 credits

The Occupational Safety and Health Administration (OSHA) 30 for the Construction Trades course teaches construction related workers about their rights, employer responsibilities and how to identify, abate, avoid and prevent job related hazards. Course outcomes align with the training outcomes recommended by OSHA. Upon successful completion, students will receive an OSHA 30 Card.

### Piping Applications

#### 10483121 .....3 credits

Presents the fundamentals of plumbing and piping installation practices. Laboratory activities provide students with basic pipe joining processes associated with the plumbing and HVAC industries.

### Welding Fundamentals 1

#### 10442117 .....1 credit

An introduction to fundamental welding techniques with an emphasis on safe work habits that covers the processes of FCAW, GMAW, and OXY-Fuel cutting. Classroom instruction paired with lab activities are designed to provide fundamental skills in each of the welding processes covered in the class.



# corrections & community advocacy

## Associate in Applied Science (AAS)

**Program Code: 10-504-7**

**Total Credits: 61-62**

Unique in the Wisconsin Technical College System, the Corrections & Community Advocacy program at Mid-State teaches the operations and management of adult/juvenile correctional institutions, probation/parole, community advocacy agencies, special needs populations, alcohol and other drug abuse, and mental health services. Graduates may work in jails, prisons, juvenile detention facilities, halfway houses, and shelter care facilities as well as in the court system. Experienced faculty emphasize professionalism and integrity needed to work in these settings. You'll experience a blend of classroom theory, simulation, and occupational observation, setting you up for success in this field. Our state-of-the-art facilities include a reproduction of a secure detention facility to allow you to develop your skills in a safe yet challenging environment.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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
- Criminal Background Statement of Understanding and Release of Information Form
- Other: \_\_\_\_\_  
\_\_\_\_\_

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**MID-STATE**  
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Stevens Point, WI 54481

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

## BACHELOR'S DEGREE OPTIONS

Lakeland University,  
Criminal Justice (BA)

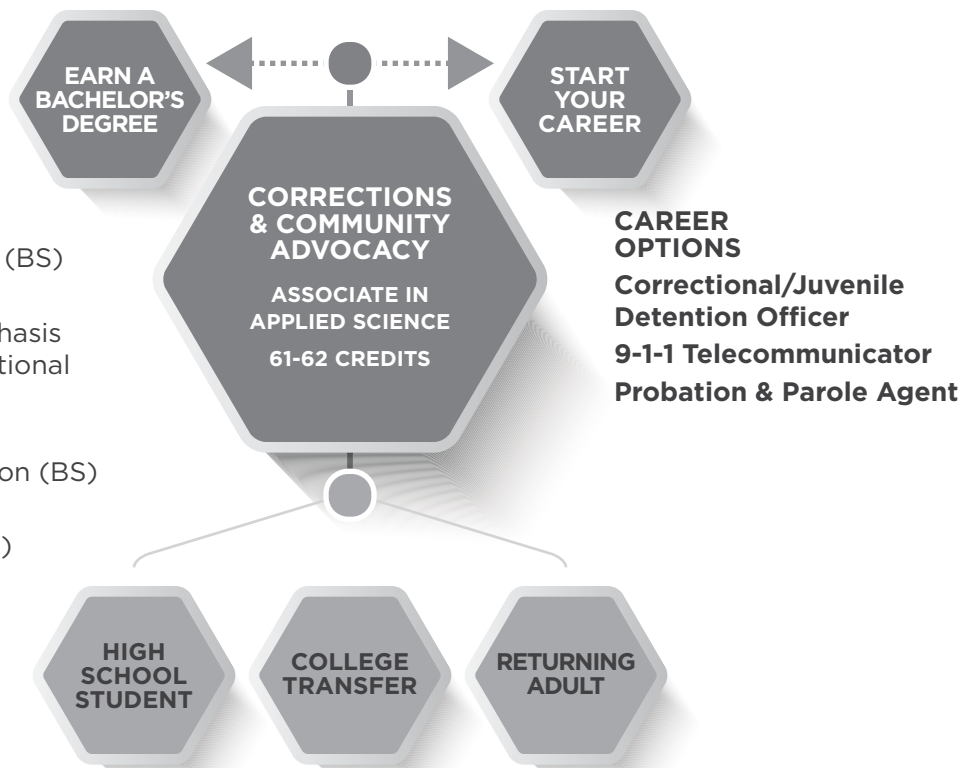
UW-Oshkosh,  
Human Services Leadership (BS)

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

UW-Stout,  
Criminal Justice Rehabilitation (BS)

Viterbo,  
Criminal Justice (BA and BS)

**For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).**



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Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

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## OTHER OPTIONS

### RELATED PROGRAMS

- Criminal Justice-Law Enforcement 720 Academy
- Criminal Justice-Studies
- Emergency Medical Technician
- Emergency Services Management
- EMT-Paramedic
- Fire Protection Technician
- Paramedic Technician

## PROGRAM OUTCOMES

Employers will expect you, as a Corrections & Community Advocacy graduate, to be able to:

- Explain the components of and interrelationships in the criminal justice system.
- Apply appropriate communication skills to public safety incidents.
- Establish situational safety.
- Engage effectively with vulnerable and disenfranchised individuals/populations.
- Model a healthy lifestyle.
- Adhere to accepted culturally competent, ethical, and behavioral conduct.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students will be assessed during scenario testing in the Advanced Relational Skills course.

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You may be eligible to enter the jail officer certification track. Successful completion of the certification track provides the education and hands-on training required by the Wisconsin Law Enforcement Standards Board to become certifiable as a jail/colocated officer.

Anyone with a felony conviction cannot become a corrections officer without a governor's pardon. A lengthy criminal history or numerous moving traffic violations may hinder opportunities for employment.

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## PROGRAM PROGRESSION

In order to successfully complete the program, students must earn a grade of "C" or better in all program and general education courses required for graduation. Please note that the ability to repeat courses is dependent upon availability of courses.

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as a jail officer is available at [mstc.edu/programs/corrections-community-advocacy](http://mstc.edu/programs/corrections-community-advocacy). Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

**10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 ..... 2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 ..... 3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 ..... 3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
10504112	Court Procedures	3
10504114	Introduction to Law Enforcement	3
10504176	Corrections/Correctional Institutions	3
10801136	English Composition 1	3
10809166	Intro to Ethics: Theory & Application	3

Term		15 credits
10504156	Child Advocacy	3
10504158	Basic Mediation	3
10504159	Interpersonal Violence/Victimology	3
10504175	Understanding Substance Abuse	3
10801196	Oral/Interpersonal Communication -or-	
10801198	Speech	3

Term		16-17 credits
10504128	Telecommunications	2
10504178	Secure Detention	2
10504184	Basic Jail Academy 1 -or-	
10504165	Basic Incarceration Principles	3
10504185	Basic Jail Academy 2 -or-	
10504167	Trauma & Resiliency	3
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		15 credits
10504116	Probation & Parole	3
10504132	Advanced Relational Skills	3
10504144	Wellness in Protective Services	3
10504179	Management of Adult Population	3
10809172	Introduction to Diversity Studies -or-	
10809196	Intro to Sociology	3

**Total credits 61-62**

**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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		9 credits
10504112	Court Procedures	3
10504114	Introduction to Law Enforcement	3
10504176	Corrections/Correctional Institutions	3

Term		12 credits
10504156	Child Advocacy	3
10504158	Basic Mediation	3
10504159	Interpersonal Violence/Victimology	3
10801136	English Composition 1	3

Term		6-7 credits
10804107	College Mathematics	3
	-or-	
10804118	Intermediate Algebra with Applications	4
	-or-	
10804189	Introductory Statistics	3
10809166	Intro to Ethics: Theory & Application	3

Term		12 credits
10504116	Probation & Parole	3
10504175	Understanding Substance Abuse	3
10801196	Oral/Interpersonal Communication -or-	
10801198	Speech	3
10809188	Developmental Psychology -or-	
10809198	Intro to Psychology	3

Term		10 credits
10504128	Telecommunications	2
10504178	Secure Detention	2
10504184	Basic Jail Academy 1 -or-	
10504165	Basic Incarceration Principles	3
10504185	Basic Jail Academy 2 -or-	
10504167	Trauma & Resiliency	3

Term		12 credits
10504132	Advanced Relational Skills	3
10504144	Wellness in Protective Services	3
10504179	Management of Adult Population	3
10809172	Introduction to Diversity Studies -or-	
10809196	Intro to Sociology	3

**Total credits 61-62**

## Advanced Relational Skills

**10504132.....3 credits**

Utilizes scenario-based instruction to prepare students in the use of specific techniques and processes required for effective communication in today's professional criminal justice professions. Emphasizes communication skills that enhance professional interactions within service professions. Learners will complete a basic resume, cover letter, and background packet. Learners will prepare for a criminal justice career interview and participate in a mock interview with current practitioners. A program requirement for community service will also be tracked in this course.  
*Prerequisite: Admission to Corrections & Community Advocacy program 105047*

## Basic Incarceration Principles

**10504165 .....3 credits**

Learners will explore topics relating to the rights of incarcerated populations, maintaining personal vigilance and environmental safety in detention facilities, caring for mentally and physically fragile populations, and communicating with inmates and facility staff.  
*Corequisite: Trauma & Resiliency 10504167*

## Basic Jail Academy 1

**10504184 .....3 credits**

This State of Wisconsin jail preparatory training program includes the following topics: Introduction to Corrections, Principles of Subject Control, Maintain Jail Security, Jail Hostage Response, Professional Communication Skills, Ethics and Ethical Decision Making, Admit and Release Inmates, Inmate Supervision and Behavior Control, Supervision of Special Needs Inmates/Crisis Intervention, Prepare Reports, Correctional Law, Jail Health Care, Cardio-Pulmonary Resuscitation, Jail Fire Safety, Application: Scenarios/Simulations, and Testing/Evaluation. Once learners successfully complete this course and the Basic Jail Academy 2 course, they are eligible for certifiable status by the State of Wisconsin to work in a county jail. This is primarily a lab-based class.  
*Prerequisites: Admission to Corrections and Community Advocacy 105047 program, passing of a background check and medical screening; Corequisite: Basic Jail Academy 2 10504185*

## Basic Jail Academy 2

**10504185.....3 credits**

This State of Wisconsin jail preparatory training program includes the following topics: Introduction to Corrections, Principles of Subject Control, Maintain Jail Security, Jail Hostage Response, Professional Communication Skills, Ethics and Ethical Decision Making, Admit and Release Inmates, Inmate Supervision and Behavior Control, Supervision of Special Needs Inmates/Crisis Intervention, Prepare Reports, Correctional Law, Jail Health Care, Cardio-Pulmonary Resuscitation, Jail Fire Safety, Application: Scenarios/Simulations, and Testing/Evaluation. Once learners successfully complete this course and the Basic Jail Academy 1 course, they are eligible for certifiable status by the State of Wisconsin to work in a county jail. This is primarily a lab-based class.  
*Prerequisite: Admission to Corrections and Community Advocacy 105047 program, passing of a background check and medical screening; Corequisite: Basic Jail Academy 1 10504184*

## Basic Mediation

**10504158.....3 credits**

Examines how to handle conflict using a mediation technique involving two or more parties who agree to meet with an impartial third party to try to resolve their dispute. Offers basic mediation training through role-playing, lectures, exercises, case histories, and demonstrations of disputes and dispute resolution. Designed for occupations requiring resolution of disagreements.

## Child Advocacy

**10504156 .....3 credits**

Introduces the concepts of child advocacy with an emphasis on the public service professional's role in identifying and managing situations involving child abuse and neglect. Provides an overview of the field of child advocacy, and explores the role of child advocate in different professions as well as ethical, legal, and professional responsibilities. Takes a multi-disciplinary team approach to examining family problems related to poverty, drug abuse, and violence. Adverse Childhood Experiences (ACEs) are examined.

## College Mathematics

**10804107 .....3 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.*

## Corrections/Correctional Institutions

**10504176.....3 credits**

Examines the history and current trends of the correctional system in the United States. Students analyze the changing philosophies of corrections and review the programs available to offenders at various stages of their involvement in the criminal justice system. Chain of command, management practices, personnel needs, types of offenders, organizational theories, policymaking, and the role of correctional personnel are addressed.

*Prerequisite: Admission to Criminal Justice-Studies program 105045 or Corrections & Community Advocacy program 105047*



## Court Procedures

**10504112 .....3 credits**

Examines the court system, including procedures from incident of arrest to final disposition. The stages of a criminal trial are examined in depth. Reviews the authority of law enforcement officials to arrest and/or detain a subject. Constitutional, federal, state, and civil laws as they apply to this criminal process are presented. Victims' rights are examined.

*Prerequisite: Admission to Criminal Justice-Studies program 105045 or Corrections & Community Advocacy program 105047*

## 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.*

## English Composition 1

**10801136 .....3 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.*

## 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.*

## Interpersonal Violence/Victimology

**10504159 .....3 credits**

Explores interpersonal violence, defined as abuse that occurs between people who know each other and that can occur within or outside a family setting. This abuse involves one person who uses power and control over another through physical, sexual, or emotional threats or actions; economic control; isolation; or other kinds of coercive behavior. Explores different types of interpersonal violence, including physical abuse, bullying, dating/relationship violence, gang violence, and sexual violence.

## Intro to Ethics: Theory & Application

**10809166 .....3 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 Psychology

**10809198 .....3 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.*

## Intro to Sociology

**10809196 .....3 credits**

Introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions of family, politics, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, and social organization.

*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.*

## Introduction to Diversity Studies

**10809172.....3 credits**

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored. *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.*

## Introduction to Law Enforcement

**10504114.....3 credits**

Explores who the police are, what they do and how they do it. The course provides a general overview of policing in our society so that learners can understand why and how policing is performed. Addresses jobs available in policing, how to get them, what skills you will need and what you will do when you get those jobs. Learners will get a clear look at policing to help them determine if this career is for them. *Prerequisite: Admission to Criminal Justice-Studies program 105045 or Corrections & Community Advocacy program 105047; Corequisite: English Composition 1 10801136*

## Introductory Statistics

**10804189.....3 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.*

## Management of Adult Population

**10504179.....3 credits**

Reviews the importance of working positively with the incarcerated adult population. Focuses on the practice of constructive interaction skills, including positive behavior control, dispute resolution, and incident debriefing. Learners explore belief systems, social pressure, moral problems, decision making, and the consequences of decisions. *Prerequisite: Admission to Corrections & Community Advocacy program 105047*

## 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 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.*

## Probation & Parole

**10504116.....3 credits**

Analyzes modern probation and parole practices and services, examines current probation procedures and the case law affecting those decisions. Reviews the advantages of community-based treatment and special programs. Through learning activities, students are exposed to a portion of the "daily life" of a probation and parole agent.

## Secure Detention

**10504178.....2 credits**

Reviews theories of adolescent development, history of juvenile court, the Wisconsin Juvenile Justice Code, and the Wisconsin Administrative Code as it applies to juvenile offenders. Learners become familiar with procedures to admit/release adolescents in secure detention. Learners also apply strategies for effective supervision, protection, and discipline of juveniles and adolescents in secure detention settings, including those classified as special-needs offenders. Students meeting all requirements of this course they will be certifiable to work in a juvenile detention colocated facility in the State of Wisconsin. *Prerequisite: Admission to Corrections & Community Advocacy program 105047*

## 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. 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.*

## Telecommunications

### **10504128.....2 credits**

Examines the duties of a 9-1-1 telecommunicator and their role in the public safety team. Focuses on how to handle an emergency when someone calls or radios for help. Further, the learner will review roles and responsibilities, legal aspects, interpersonal communications, trending technology, telephone techniques and call processing, call classification, and radio communications. Learners will discover how to take care of themselves as a 9-1-1 telecommunicator.

## Trauma & Resiliency

### **10504167.....3 credits**

Learners will explore the causes and effects of trauma and poverty on youth and adult disenfranchised populations. Through the principles of Trauma Informed Care, learners will experience resiliency-building techniques and practice strategies for communicating and advocating for people affected by trauma.

*Corequisite: Basic Incarceration Principles 10504165*

## Understanding Substance Abuse

### **10504175.....3 credits**

Examines the problems of drug abuse and issues across the spectrum, including the latest thoughts about prevention and awareness. Provides an understanding of the origins and current status of drug use, including special situations addressed for a person who may be experiencing problems with substance abuse. Assessment, intervention, rehabilitation, and recovery are also introduced.

## Wellness in Protective Services

### **10504144 .....3 credits**

Introduces the skills and abilities needed to deal constructively with the stress related to a field in criminal justice. Focuses on assessing individual sources of stress, analyzing the impact of that stress, and developing stress-coping mechanisms. Learners will explore coping mechanisms such as assertion, anger management, conflict resolution, time management, relaxation activities, and exercise and diet planning.

*Prerequisite: Admission to Criminal Justice-Studies program 105045 or Corrections & Community Advocacy program 105047*



# cosmetology

## Technical Diploma Program Code: 31-502-1 Total Credits: 33

Combined with successful completion of the state licensing exam, Mid-State's Cosmetology program provides the theory and practice you need to build your cosmetology career. Students study hair cutting, perming/relaxing, and styling as well as facial and scalp treatments, barbering, makeup, pedicuring, manicuring, and more. The program emphasizes sanitation and safety. You'll learn from experienced instructors, guest lectures, demonstrations, industry representatives, and platform artists. Your practice will progress from working on mannequins to providing services in the on-campus salon. Many other hands-on opportunities are available, including job shadowing.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

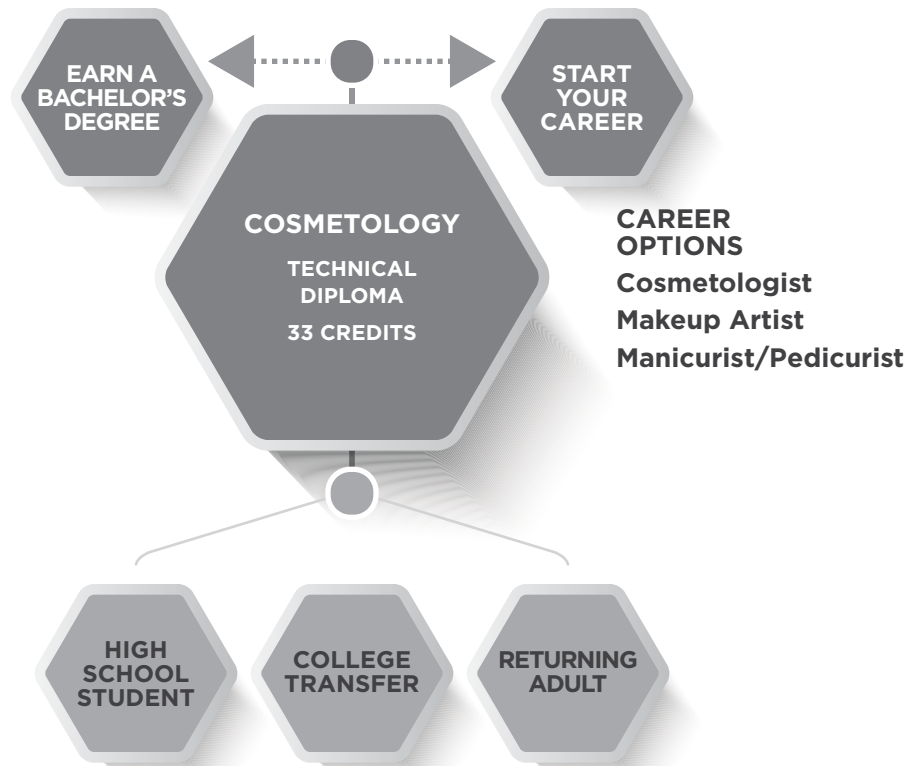
**MARSHFIELD CAMPUS**  
2600 West 5th Street  
Marshfield, WI 54449

**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

For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).



College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Barber Technologist

## PROGRAM OUTCOMES

Employers will expect you, as a Cosmetology graduate, to be able to:

- Apply safety and sanitation procedures.
- Adhere to the current Wisconsin administrative codes and statutes for cosmetology.
- Demonstrate interpersonal skills for success.
- Perform hair cutting services.
- Perform shampoo services.
- Perform skin care services.
- Perform texture services.
- Perform hair color services.
- Demonstrate hair styling and finishing techniques.
- Perform nail services.
- Develop strategies to market products and services.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students will complete a mock board exam in the Capstone Experience course to fulfill the TSA requirement.

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Most classes are offered in a face-to-face format. Theory of General Sciences is offered only in an online format. Work on mannequins, other students, and in an on-campus salon completes the practical component of your training.

Students must purchase a kit of required tools and supplies. The cost of the kit is approximately \$1,700 and must be purchased for use on the first day of class.

Students who successfully complete the program will meet the Wisconsin requirement of 1,550 hours of theoretical and practical instruction. Financial aid and scholarships are available to those who qualify.

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## TECHNICAL STANDARDS

Students must have good fine motor skills, especially finger dexterity, as well as good hand-eye coordination and 20/40 vision in best eye with 70 degrees to each side for peripheral vision, as determined by the Department of Transportation.

## PROGRAM PROGRESSION

In order to progress in and successfully complete the program, students must repeat core courses (courses numbered 31-502-xxx) not completed with a grade of "C" or better prior to progressing in core courses or other courses with co- or prerequisites.

Please note that the ability to repeat courses is dependent upon availability of courses. Students may be required to apply for program re-entry in order to repeat courses.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

**10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 ..... 2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 ..... 3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 ..... 3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		14 credits
31502334	Hairstyling	3
31502335	Haircutting	3
31502336	Chemical Texture Services	3
31502337	Nail Technology	1
31502340	Facials	1
31502347	Haircolor	3

Term		13 credits
31502316	Theory of General Sciences	1
31502338	Salon Operations	1
31502342	Capstone Experience	3
31502343	Salon Client Relations	4
31502344	Salon Ecology & Industry Trends	4

Term		6 credits
31502349	Salon Communication & Management	3
31502350	Salon Sales & Marketing	3

**Total credits 33**

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		8 credits
31502316	Theory of General Sciences	1
31502335	Haircutting	3
31502336	Chemical Texture Services	3
31502338	Salon Operations	1

Term		8 credits
31502340	Facials	1
31502343	Salon Client Relations	4
31502347	Haircolor	3

Term		7 credits
31502334	Hairstyling	3
31502344	Salon Ecology & Industry Trends	4

Term		7 credits
31502337	Nail Technology	1
31502349	Salon Communication & Management	3
31502342	Capstone Experience	3

Term		3 credits
31502350	Salon Sales & Marketing	3

**Total credits 33**

## course descriptions

### Capstone Experience

**31502342 .....3 credits**

Students prepare for the state board exam and for securing a job. Students complete a mock assessment of all state board practical and written concepts, including state law. Students also prepare for their job search and for working with the business side of the cosmetology industry.

*Corequisite: Admission to the Cosmetology program 315021 and consent of instructor*

### Chemical Texture Services

**31502336 .....3 credits**

Includes the basics of safe and sanitary permanent waving and chemical hair relaxing. Includes history and product knowledge of these chemical services as well as advanced techniques and procedures that define current trends in the salon.

*Prerequisite: Admission to Cosmetology program 315021*

### Facials

**31502340 .....1 credit**

Students learn the different types of skin and study structure and functions of the skin. Applies basic facial techniques. Students will study microdermabrasion, laser hair removal, and chemical peels. They also perform basic skin waxing techniques, removal of superfluous hair, makeup application, false eyelash application, and skin analysis.

*Prerequisite: Admission to Cosmetology program 315021*

### Haircolor

**31502347 .....3 credits**

Covers hair-color basics which include the law of color, the color wheel, and the theory behind these concepts. Students identify the chemicals used in hair color and discover the differences between temporary, semi/demi, and permanent color. Students mix and apply color while developing skills and building client consultation techniques. Studies application methods governed by the state board regulations. Also teaches the study of bleach theory and complete lightening applications, including foiling. Students experience advanced color formulations, color placement techniques, and color correction procedures.

*Prerequisite: Admission to Cosmetology program 315021*

### Haircutting

**31502335 .....3 credits**

Involves designing haircuts, understanding form, and applying various haircutting techniques. Students perform various haircuts, including blunt, uniform, increased, and graduated haircuts. Students also perform men's haircuts including razor cutting, shear over comb, clipper cutting clipper over comb, short tapered, and flattops. Trimming techniques used for men's facial hair are also emphasized and practiced, including shaving, beards, mustaches, and side burns.

*Prerequisite: Admission to Cosmetology program 315021*

# course descriptions

## **Hairstyling**

**31502334 .....3 credits**

Emphasizes wet and dry hairstyling to include rollers, air-forming, thermal styling, hair straightening, finger waving, pin curls, hair analysis, shampooing, scalp treatments, braiding, long hair design, and hair pressing. Fundamentals of thermal styling and comb-outs are performed. Practical aspects of hair enhancements including wigs, hair extensions, and hair pieces will also be performed.

*Prerequisite: Admission to Cosmetology program 315021*

## **Nail Technology**

**31502337 .....1 credit**

Students achieve skills in manicuring, pedicuring, and nail enhancement services, including polish application and massage techniques. Students study nail shape and safe and sanitary use of nail care products. Paraffin hand dips, advanced polish techniques, and various nail art application are practiced.

*Prerequisite: Admission to Cosmetology program 315021*

## **Salon Client Relations**

**31502343 .....4 credits**

This course promotes student development of salon client relations while expanding skills and proficiencies in delivering a wide range of client-related services. Emphasizes client consultations, client relations, proper business practices, professional attitudes, and refining techniques that will ensure entry-level preparedness for the Wisconsin licensing exam. Students complete this course by working in an on-campus beauty salon environment. In addition, students must complete 25 hours of on-the-job training (outside of the Mid-State salon and any other current employment location of the student) and secure approval from the course instructor.

*Corequisite: Salon Operations 31502338*

## **Salon Communication & Management**

**31502349 .....3 credits**

This course focuses on salon communication and management. Students will concentrate on development of communication and management skills and proficiencies by providing a wide range of client services. Emphasizes client consultations, communication, proper business and management practices, professional attitudes, and refining techniques that will ensure entry-level preparedness for the Wisconsin licensure exam. Students complete this course in the on-campus salon.

*Corequisite: Salon Operations 31502338*

## **Salon Ecology & Industry Trends**

**31502344 .....4 credits**

This course introduces current industry trends and salon ecology. Students will focus on infection control and the latest trends while continuing to develop their skills and proficiencies by providing a wide range of client-related services. Emphasizes client consultations, infection control, trends, proper business practices, professional attitudes, and refining techniques that will ensure entry-level preparedness for the Wisconsin licensing exam. Students complete this course by working in an on-campus beauty salon environment. In addition, students must complete 25 hours of on-the-job training (outside of the Mid-State salon and any other current employment location of the student) and secure approval from the course instructor.

*Corequisite: Salon Operations 31502338*

## **Salon Operations**

**31502338 .....1 credit**

Promotes student development of salon operation skills while providing a wide range of client-related services. Emphasizes daily operations of a salon, client consultations, proper business practices, professional attitudes, and refining techniques that ensure preparedness for the Wisconsin licensing exam.

*Corequisites: Haircolor 31502347, Hairstyling 31502334, Haircutting 31502335, Chemical Texture Services 31502336, Nail Technology 31502337, and Facials 31502340*

## **Salon Sales & Marketing**

**31502350 .....3 credits**

This course focuses on salon sales and marketing techniques. Students will concentrate on development of skills and proficiencies by providing a wide range of client services. Emphasizes client consultations, salon sales and marketing techniques, proper business practices, professional attitudes, and refining techniques that will ensure entry-level preparedness for the Wisconsin licensure exam. Students complete this course in the on-campus salon.

*Corequisite: Salon Operations 31502338*

## **Theory of General Sciences**

**31502316 .....1 credit**

Covers several general science topics integral to the field of barbering/cosmetology, including bacteriology, infection control, properties of the hair and scalp, nail structure and growth, skin diseases and disorders, introduction to electrology, the basics of electricity, chemistry, and anatomy and physiology. This course is offered online only.

*Prerequisite: Admission to Cosmetology program 315021*





# criminal justice-law enforcement 720 academy

## Technical Diploma Program Code: 30-504-2 Total Credits: 22

This program is specifically designed for students with a minimum of 60 college credits who seek to meet the certification requirements necessary to become a law enforcement officer in the state of Wisconsin. Students must meet the entrance requirements as set forth by the Wisconsin Department of Justice.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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: \_\_\_\_\_  
\_\_\_\_\_

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**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

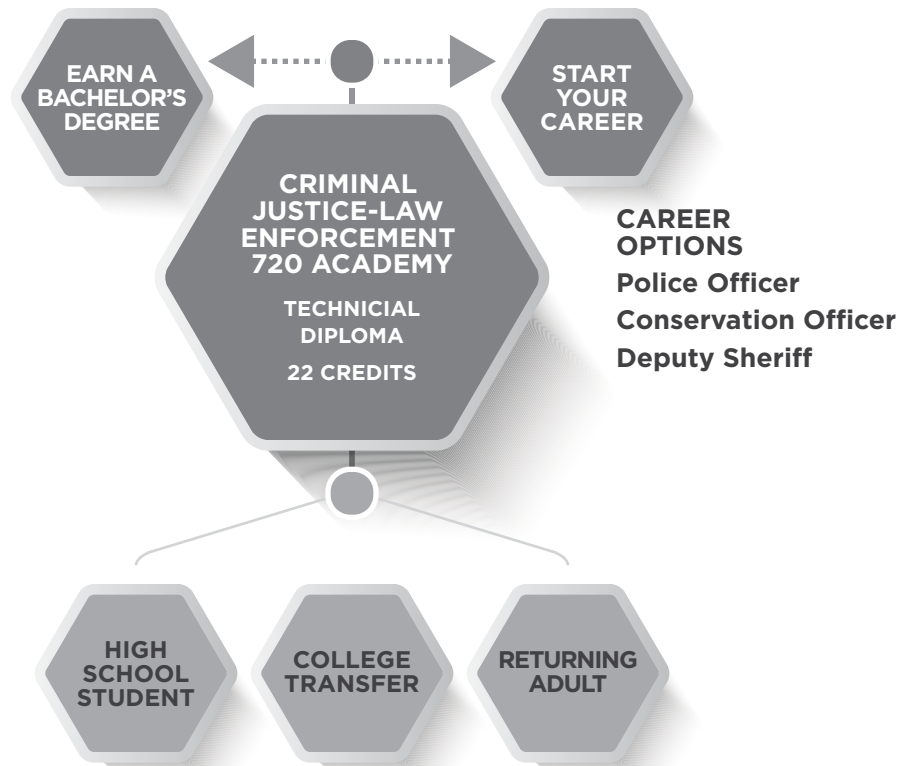
**WISCONSIN RAPIDS CAMPUS**  
500 32nd Street North  
Wisconsin Rapids, WI 54494

## BACHELOR'S DEGREE OPTIONS

UW-Parkside,  
Criminal Justice (BA)

UW-Stevens Point,  
Basic Recruit Academy

**For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**College Credit • Dual Credit • Military Experience • Work Experience**  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Corrections & Community Advocacy
- Criminal Justice-Studies
- Emergency Medical Technician
- Emergency Services Management
- EMT-Paramedic
- Fire Protection Technician
- Paramedic Technician

## PROGRAM OUTCOMES

Employers will expect you, as a Criminal Justice-Law Enforcement 720 Academy graduate, to be able to:

- Think critically.
- Manage emergencies.
- Communicate effectively.
- Demonstrate professionalism.
- Conduct investigations.
- Interact with others.
- Demonstrate technical skills.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students will complete the TSA requirements through scenario testing at the end of the program.

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Anyone with a felony conviction or a domestic abuse conviction cannot become a law enforcement officer without a governor's pardon. Numerous moving traffic violations or a lengthy criminal history or mental illness that prevents the applicant from performing essential job functions may hinder opportunities for employment.

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## ADDITIONAL ENTRY CRITERIA

To apply to the Criminal Justice-Law Enforcement 720 Academy program:

- The applicant shall have attained a minimum age of 18 years.
- The applicant shall possess a Wisconsin high school diploma or a diploma issued by an out-of-state high school accredited by an appropriate agency of the state or have a General Education Development (GED) Certificate or a High School Equivalency Diploma (HSED). In Wisconsin, high school diplomas are issued by public and private schools. A home-based private educational program does not lead to a traditional Wisconsin high school diploma. A student who is enrolled in a home-based private educational program must attain a GED or HSED to be eligible for preparatory law enforcement officer training.
- The applicant shall possess a valid Wisconsin driver's license or such other valid operator's permit recognized by the Wisconsin department of transportation as authorizing operation of a motor vehicle in Wisconsin.
- The applicant shall not have been convicted of any federal felony or of any offense that if committed in Wisconsin could be punished as a felony unless the applicant has been granted an absolute and unconditional pardon.
- The applicant shall not have been convicted of any misdemeanor crime of domestic violence unless the applicant has been granted an absolute and unconditional pardon.

- The applicant shall not be prohibited by federal or state law from possessing a firearm.
- The applicant shall be a United States citizen.
- The applicant shall possess either a two-year associate degree from a Wisconsin Technical College System district or its accredited equivalent from another state or a minimum of 60 accredited semester credits or 90 accredited quarter credits. An official college transcript from the educational institution where credit was awarded shall serve as evidence of an applicant having met the associate degree or college credit requirement. School accreditation can be checked at the US Department of Education website.
- A physical assessment shall be conducted to verify that the applicant can meet the physical standards required of a law enforcement officer. The assessment shall be conducted by a Wisconsin licensed physician who shall provide a signed written report on the results of the assessment to the training school.
- An oral interview shall be conducted with a panel of law enforcement executives or with teaching or counseling staff affiliated with the training school to determine the applicant's suitability for law enforcement officer employment and to assess the applicant's demeanor, background, and ability to communicate.
- Physical ability will be tested prior to entrance into a preparatory law enforcement officer training academy and again during Phase 3 of the academy. There are both entrance and exit standards for passing the Physical Readiness Test.

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as a law enforcement officer is available at [mstc.edu/programs/criminal-justice-studies](http://mstc.edu/programs/criminal-justice-studies). Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## PROGRAM PROGRESSION

In order to successfully complete the program, students must:

- Receive a grade of "C" or better in all courses required for graduation. Please note that the ability to repeat courses is dependent upon availability of courses.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.



## Application of Investigations

**3050432.....1 credit**

Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Phase II topics of the Department of Justice 720 Academy curriculum framework: Ethics II: Moral Reasoning and Professional Responsibility, Cultural Competence II: Fair and Impartial Policing, Interrogations, Testifying in Court, and Crimes III.

*Prerequisite: Admission to Criminal Justice-Law Enforcement 720 Academy program 305041 and must successfully complete the application process.*

## Application of Traffic Response

**30504319.....3 credits**

Through classroom lecture, and on-campus lab and WI Department of Justice integration exercises, students will learn and apply skills addressed in the following Phase III topics from the WI Department of Justice 720 Academy curriculum framework: Traffic Law Enforcement - Core and Radar, Traffic Crash Investigations & Incident Management, Operating a Motor Vehicle While Intoxicated (OMVWI), Standardized Field Sobriety Tests (SFST), Hazardous Materials and Weapons of Mass Destruction (WMD), Incident Command Systems and NIMS, and Report Writing.

*Prerequisite: Admission to Criminal Justice-Law Enforcement 720 Academy program 305041 and must successfully complete the application process*

## Overview of Criminal Justice

**30504310 .....1 credit**

Through classroom lecture and Wisconsin Department of Justice 720 Academy integration exercises, students learn and apply skills addressed in the following Wisconsin Department of Justice 720 Academy Phase I curriculum framework topics: Academy Orientation, Fundamentals of Criminal Justice, Ethics, Cultural Competency, Agency Policy, and Professional Communication.

*Prerequisite: Admission to Criminal Justice-Law Enforcement 720 Academy program 305042 and must successfully complete the application process*

## Overview of Investigations

**30504311.....2 credits**

Through classroom lecture, on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase I topics: Constitutional Law I, Crimes I, Interviews, and Report Writing.

*Prerequisite: Admission to Criminal Justice-Law Enforcement 720 Academy program 305041 and must successfully complete the application process*

## Overview of Patrol Response

**30504313.....2 credits**

Through classroom lecture, on-campus lab, and Wisconsin Department of Justice integration exercises, students will learn and apply skills addressed in the following Wisconsin Department of Justice 720 Academy curriculum framework Phase I topics: Critical Thinking and Decision-Making, Basic Response (RESPOND), Radio Procedures, Introduction to TraCS, Traffic Law Enforcement, and First Aid/CPR/AED.

*Prerequisite: Admission to Criminal Justice-Law Enforcement 720 Academy program 305042 and must successfully complete the application process*

## Overview of Tactics

**30504312.....1 credit**

Through classroom lecture, on-campus lab, and Wisconsin Department of Justice 720 Academy integration exercises, students learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase I topics: Fundamentals of Firearms, Vehicle Contacts I, Officer Wellness, and Defensive and Arrest Tactics.

*Prerequisite: Admission to Criminal Justice-Law Enforcement 720 Academy program 305041 and must successfully complete the application process*

## Physical Fitness

**30504320.....1 credit**

Through classroom lecture and on-campus lab students will apply Phases I-III Health Fitness WI Department of Justice 720 Academy curriculum framework program requirements and Officer Wellness Suicide Prevention.

*Prerequisite: Admission to Criminal Justice-Law Enforcement 720 Academy program 305041 and must successfully complete the application process*

## Practical Assessments (scenarios)

**30504321.....1 credit**

Through classroom lecture the scenario week is divided into two components: training and testing. The goal of the training component is to further develop and consolidate students' skills and abilities to perform in realistic law enforcement situations. The goal of the testing component is to assess whether students' performance in realistic law enforcement situations meets established criteria. The scenario training component is not graded. The scenario testing component is graded and students must earn a passing grade to successfully complete preparatory law enforcement training and on-campus lab students will apply Phases I-III Health Fitness WI Department of Justice 720 Academy curriculum framework program requirements. Admission to Criminal Justice-Law Enforcement Academy program 305041 and must successfully complete the application process.

## **Principles of Emergency Vehicle Response**

**30504317.....2 credits**

Through classroom lecture, on-campus lab, and Wisconsin Department of Justice 720 Academy integration exercises, students learn and apply skills addressed in the following Department of Justice 720 Academy Phase II topics: Emergency Vehicle Operation and Control (EVO) and Vehicle Contacts II.

*Prerequisite: Admission to Criminal Justice-Law Enforcement 720 Academy program 305041 and must successfully complete the application process*

## **Principles of Investigations**

**30504315.....1 credit**

Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Phase II topics of the WI Department of Justice 720 Academy curriculum framework: Constitutional Law II, Physical Evidence Collections, and Crisis Management. The Phase II Written Exam will be given in this course.

*Prerequisite: Admission to Criminal Justice-Law Enforcement 720 Academy program 305041 and must successfully complete the application process*

## **Principles of Tactics**

**30504316.....5 credits**

Through classroom lecture and on-campus lab and integration exercises, students will learn and apply skills addressed in the following Phase II topics from the Department of Justice 720 Academy curriculum frameworks including: Professional Communication Skills II, DAAT, Firearms II, Tactical Response, and a Tactical Emergency Casualty Care.

*Prerequisite: Admission to Criminal Justice-Law Enforcement 720 Academy program 305041 and must successfully complete the application process*

## **Sensitive Crimes**

**30504323.....2 credits**

Through classroom lecture, and on-campus lab and WI Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase III topics: Domestic Violence, Juvenile Law, Victims, Sexual Assault, and Child Maltreatment. The DOJ Phase III Written Examination will be administered in this course.

*Prerequisite: Admission to Criminal Justice-Law Enforcement 720 Academy program 305041 and must successfully complete the application process*



# criminal justice-studies

## Associate in Applied Science (AAS) Program Code: 10-504-5 Total Credits: 60

The Criminal Justice-Studies program prepares students to meet the challenges that come with a variety of positions in the criminal justice field. Graduates interested in pursuing a career as a law enforcement officer are prepared for entry into the 720-hour certification training required for law enforcement certifiable status by the Wisconsin Department of Justice. Graduates who do not seek sworn law enforcement positions may use their skills in civilian law enforcement positions, such as record and documentation maintenance, dispatch or communications center operations, or secure correctional facility operations. This program is designed to help secure employment, keep students abreast of rapidly changing advancements, and encourage further education. Experienced instructors emphasize professionalism, integrity, and quality work performance, with a significant focus on high ethical and moral standards.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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
- Criminal Background Statement of Understanding and Release of Information Form
- Other: \_\_\_\_\_  
\_\_\_\_\_

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**888.575.6782**



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**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,  
Public Safety (BS)

Lakeland University,  
Criminal Justice (BA)

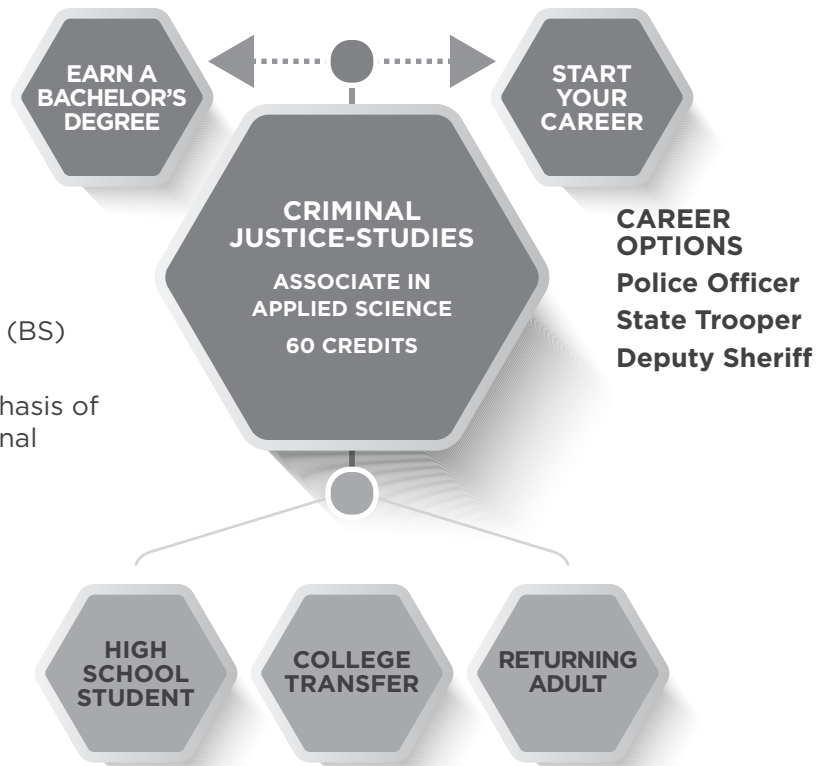
UW-Oshkosh,  
Human Services Leadership (BS)

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

UW-Whitewater,  
Criminology

Viterbo,  
Criminal Justice (BA & BS)

**For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**College Credit • Dual Credit • Military Experience • Work Experience**  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Corrections & Community Advocacy
- Criminal Justice-Law Enforcement 720 Academy
- Emergency Medical Technician
- Emergency Services Management
- EMT-Paramedic
- Fire Protection Technician
- Paramedic Technician



## PROGRAM OUTCOMES

Employers will expect you, as a Criminal Justice-Studies graduate, to be able to:

- Examine the components of and interrelationships in the criminal justice system.
- Analyze situational responses.
- Apply communication skills as a criminal justice professional.
- Conduct investigations.
- Adhere to the professional code of ethics for a criminal justice practitioner.
- Maintain personal wellness.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students will be assessed on TSA outcomes during their Criminal Investigation and Wellness in Protective Services courses.

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Upon graduation from the Criminal Justice-Studies program, you may be eligible to enter the Criminal Justice-Law Enforcement 720 Academy (30-504-2). Successful completion of the Criminal Justice-Law Enforcement 720 Academy provides the education and hands-on training required by the Wisconsin Law Enforcement Standards Board to become certifiable as a law enforcement officer. Entrance and exit physical fitness readiness standards as established by the Wisconsin Department of Justice must be met in order to participate in and complete the Criminal Justice-Law Enforcement 720 Academy.

Anyone with a felony conviction or a domestic abuse conviction cannot become a law enforcement officer without a governor's pardon. Numerous moving traffic violations or a lengthy criminal history or mental illness that prevents the applicant from performing essential job functions may hinder opportunities for employment.

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as a law enforcement officer is available at [mstc.edu/programs/criminal-justice-studies](http://mstc.edu/programs/criminal-justice-studies). Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## PROGRAM PROGRESSION

In order to successfully complete the program, students must earn a grade of "C" or better in all program and general education courses required for graduation. Please note that the ability to repeat courses is dependent upon availability of courses.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

**10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 ..... 2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 ..... 3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 ..... 3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

**SAMPLE FULL-TIME CURRICULUM OPTION**

<b>Term</b>		<b>15 credits</b>
10504112	Court Procedures	3
10504114	Introduction to Law Enforcement	3
10504176	Corrections/Correctional Institutions	3
10801136	English Composition 1	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3

<b>Term</b>		<b>15 credits</b>
10504129	Community Policing	3
10504140	Report Writing for Protective Services	3
10504163	Constitutional Law for LE	3
10504166	Criminal Justice Ethics	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3

<b>Term</b>		<b>15 credits</b>
10504103	Fitness for Law Enforcement	1
10504115	Contemporary Issues in Law Enforcement	3
10504125	Patrol Procedures	3
10504164	Criminal Law for LE	3
10504195	Criminal Justice Internship <b>-or-</b>	
10504196	Criminal Justice Applications	2
10804107	College Mathematics	3

<b>Term</b>		<b>15 credits</b>
10504123	Criminal Investigation	3
10504134	Intro to Law Enforcement Organizations and Leadership	3
10504144	Wellness in Protective Services	3
10809122	Intro to American Government <b>-or-</b>	
10809196	Intro to Sociology	3
10809172	Introduction to Diversity Studies	3

**Total credits 60****SAMPLE PART-TIME CURRICULUM OPTION**

<b>Term</b>		<b>9 credits</b>
10504112	Court Procedures	3
10504114	Introduction to Law Enforcement	3
10801136	English Composition 1	3

<b>Term</b>		<b>9 credits</b>
10504140	Report Writing for Protective Services	3
10504166	Criminal Justice Ethics	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3

<b>Term</b>		<b>9 credits</b>
10504176	Corrections/Correctional Institutions	3
10804107	College Mathematics	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3

<b>Term</b>		<b>7 credits</b>
10504129	Community Policing	3
10504103	Fitness for Law Enforcement	1
10504163	Constitutional Law for LE	3

<b>Term</b>		<b>9 credits</b>
10504115	Contemporary Issues in Law Enforcement	3
10504125	Patrol Procedures	3
10504164	Criminal Law for LE	3

<b>Term</b>		<b>9 credits</b>
10504134	Intro to Law Enforcement Organizations and Leadership	3
10809122	Intro to American Government <b>-or-</b>	
10809196	Intro to Sociology	3
10809172	Introduction to Diversity Studies	3

<b>Term</b>		<b>8 credits</b>
10504123	Criminal Investigation	3
10504144	Wellness in Protective Services	3
10504195	Criminal Justice Internship <b>-or-</b>	
10504196	Criminal Justice Applications	2

**Total credits 60**

## College Mathematics

### 10804107 .....3 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.*

## Community Policing

### 10504129 .....3 credits

Learners will analyze key components of Community Policing including community partnerships, organizational transformation and problem solving. They will examine the role of the patrol officer in relation to community-oriented and problem-oriented policing. Learners will identify community-oriented needs and work directly in the field with community partners to develop a plan for implementation.

*Prerequisites: Admission to Criminal Justice-Studies program 105045, Court Procedures 10504112, and Introduction to Law Enforcement 10504114*

## Constitutional Law for LE

### 10504163 .....3 credits

Learners will explore constitutional law as it relates to the legal basis of the action and limits of law enforcement regarding topics such as arrest, use of force, and search and seizure. Learners will examine the requirements under Wisconsin law guiding law enforcement agency policy and procedures.

*Prerequisite: Admission to Criminal Justice-Studies program 105045, Court Procedures 10504112, and Introduction to Law Enforcement 10504114*

## Contemporary Issues in Law Enforcement

### 10504115 .....3 credits

Studies current police issues related to law enforcement and community attitudes. The course builds a strong basis for the discussion of ethical decision making and the need for a professional mindset. A component to this class focuses on community involvement. Students will identify community organizations in need of volunteers and complete 20 hours of service with those organizations.

*Prerequisites: Admission to Criminal Justice-Studies program 105045 and Intro to Law Enforcement 10504114*

## Corrections/Correctional Institutions

### 10504176.....3 credits

Examines the history and current trends of the correctional system in the United States. Students analyze the changing philosophies of corrections and review the programs available to offenders at various stages of their involvement in the criminal justice system. Chain of command, management practices, personnel needs, types of offenders, organizational theories, policymaking, and the role of correctional personnel are addressed.

*Prerequisite: Admission to Criminal Justice-Studies program 105045 or Corrections & Community Advocacy program 105047. Corequisite: English Composition 1 10801136.*

## Court Procedures

### 10504112 .....3 credits

Learners examine the court system to include how the system has evolved, the theories that developed our legal system, and how the law is truly applied in court. A main focus is dissecting each stage of a criminal case from the initial arrest through the final appeal. The roles and authority of law enforcement, prosecutors, defense attorneys, and judges are explored.

*Prerequisite: Admission to Criminal Justice-Studies program 105045 or Corrections & Community Advocacy program 105047. Corequisite: English Composition 1 10801136*

## Criminal Investigation

### 10504123.....3 credits

This course covers crime scene investigation and criminalistics, and the laws that govern them. Learners will focus on how a crime scene should be investigated, searched and processed for evidence. Learners will search crime scenes, collect and preserve physical evidence and interview victims and witnesses.

*Prerequisites: Admission to Criminal Justice-Studies program 105045 and Introduction to Law Enforcement 10504114 and Court Procedures 10504112*

## Criminal Justice Applications

### 10504196 .....3 credits

This course will offer students who don't wish to do an internship an opportunity to meet and complete many of the same objectives. Learners will explore different aspects of the law enforcement career and work on job skills such as resumes, cover letters and interviews.

*Prerequisites: Admission to Criminal Justice-Studies program 105045, Intro to Law Enforcement 10504114, Court Procedures 10504112, and Constitutional Law for LE 10504163*

## Criminal Justice Ethics

### 10504166 .....3 credits

Introduces learners to ethical duties and decision making dilemmas facing criminal justice professionals. Provides the basic foundations of ethical reasoning and the standards for determining sound ethical decision making. Increases the learner's application of ethical reasoning in the face of agency corruption, use of force, gender and race discrimination, due process, and duty towards others.

*Prerequisite: Admission to Criminal Justice-Studies program 105045*

## Criminal Justice Internship

**10504195 .....2 credits**

The internship offers learners an excellent opportunity to experience first-hand, the wide variety of duties and responsibilities of criminal justice professionals in the field. Students interested in an internship with an agency will fill out an application and go through an interview process. Selected applicants will be placed with an agency to complete the 72 hours of their internship. There is an additional 18 hours of in class lecture. NOTE: Students completing an off-site internship must complete a Criminal Background Check. Host agencies criteria for acceptance as an intern may impact a student's ability to participate in this course.

## Criminal Law for LE

**10504164 .....3 credits**

Learners will identify concepts specific to criminal law to include the purpose, scope, and sources of law. Students will analyze Wisconsin State Statutes to learn about Wisconsin's crimes against people, property, and other forms of criminal behavior. Learners will study how the criminal code is enforced with regard to juveniles in Wisconsin.

*Prerequisites: Admission to Criminal Justice-Studies program 105045, Introduction to Law Enforcement 10504114, and Court Procedures 10504112.*

## 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.*

## English Composition 1

**10801136 .....3 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.*

## Fitness for Law Enforcement

**10504103 .....3 credits**

This course is designed to get students prepared for the physical fitness demands of law enforcement. Learners will identify healthy habits and explore ways to make fitness a part of their daily lives to build the foundation for a healthy career. Learners will be prepared to meet the physical entrance standards for the DOJ recruit academy.

*Prerequisites: Admission to Criminal Justice-Studies program 105045, Intro to Law Enforcement 10504114, and Court Procedures 10504112.*

## Intro to American Government

**10809122.....3 credits**

Introduces American political processes and institutions. Focuses on rights and responsibilities of citizens and the process of participatory democracy. Learners examine the complexity of the separation of powers and checks and balances. Explores the role of the media, interest groups, political parties, and public opinion in the political process. Also explores the role of state and national government in our federal system.

*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 Law Enforcement Organizations and Leadership

**10504134 .....3 credits**

Learners will examine effective leadership strategies to include concepts on transformational leadership, collaborative leadership, and organizational leadership. Students will identify areas that they can immediately develop regarding their leadership skills and learn how to apply those skills in the future.

*Prerequisite: Admission to Criminal Justice-Studies program 105045.*

## Intro to Psychology

**10809198 .....3 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.*

## Intro to Sociology

**10809196 .....3 credits**

Introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions of family, politics, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, and social organization.

*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.*

## Introduction to Diversity Studies

**10809172.....3 credits**

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored. *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.*

## Introduction to Law Enforcement

**10504114.....3 credits**

Explores who the police are, what they do and how they do it. The course provides a general overview of policing in our society so that learners can understand why and how policing is performed. Addresses jobs available in policing, how to get them, what skills you will need and what you will do when you get those jobs. Learners will get a clear look at policing to help them determine if this career is for them. *Prerequisite: Admission to Criminal Justice-Studies program 105045 or Corrections & Community Advocacy program 105047; Corequisite: English Composition 1 10801136*

## 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 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.*

## Patrol Procedures

**10504125.....3 credits**

Learners are introduced to effective patrol techniques related to the use of law enforcement electronic equipment, traffic enforcement, and patrol-related techniques. Learners will utilize a mixture of classroom and realistic training exercises while using equipment that is consistent with what actual law enforcement officers use in the field. *Prerequisites: Admission to Criminal Justice-Studies program 105045 and Intro to Law Enforcement 10504114*

## Report Writing for Protective Services

**10504140.....3 credits**

Introduces the knowledge necessary to write a variety of law enforcement reports to convey necessary information that is clear, concise, complete and accurate. Learners will participate in scenarios and role playing which will culminate with them completing a police report. *Prerequisite: Admission to Criminal Justice-Studies program 105045 and English Composition 10801136*

## Speech

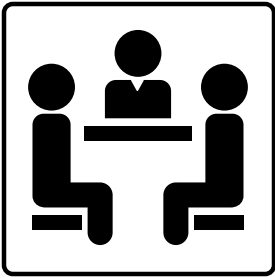
**10801198.....3 credits**

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. 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.*

## Wellness in Protective Services

**10504144.....3 credits**

Introduces the skills and abilities needed to deal constructively with the stress related to a career in criminal justice. Learners will identify their sources of stress, their early warning signs and healthy coping styles. Course also focuses on time management, relaxation activities along with exercise and diet planning. *Prerequisite: Admission to Criminal Justice-Studies program 105045 or Corrections & Community Advocacy program 105047*



# customer relationship professional

## Technical Diploma Program Code: 30-106-8 Total Credits: 12 credits

The only program of its kind in the Wisconsin Technical College System, Mid-State's Customer Relationship Professional program develops students into important members of a call center or customer service team. The program focuses on communicating with customers to help them navigate past challenges to fulfill their needs, emphasizing active listening, effective verbal communication, and customer service skills. Through hands-on projects, you will learn telephone etiquette, how to respond appropriately to customers, and how to perform quick problem-solving analysis while exceeding customer expectations.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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: \_\_\_\_\_  
\_\_\_\_\_

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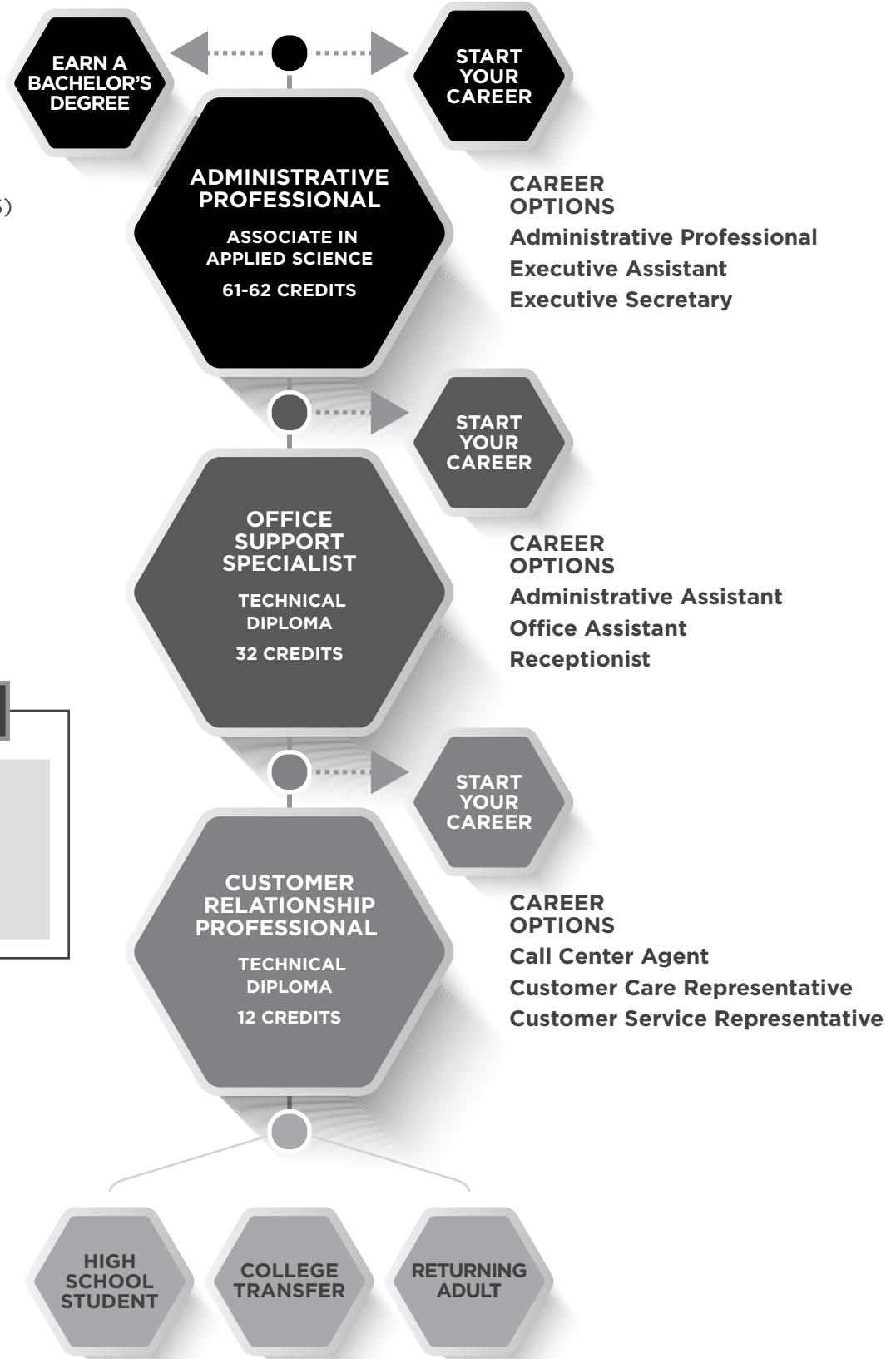
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Stevens Point, WI 54481

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

**BACHELOR'S DEGREE OPTIONS**

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

**For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**OTHER OPTIONS**

**RELATED PROGRAMS**

- Business Management
- Entrepreneurship
- Human Resources Assistant
- Leadership Development
- Project Management

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IN THE PATHWAY**





## SAMPLE FULL-TIME CURRICULUM OPTION

Term		12 credits
10103106	Microsoft Office-Introduction*	3
10106106	Quality Customer Service*	3
10801136	English Composition 1*	3
10809172	Introduction to Diversity Studies*	3
<b>Total credits</b>		<b>12</b>

\* This course may also be offered in a different term including during winterim or summer terms, with 3-week, 8-week, or 16-week sessions available. A variety of modalities and class lengths may be available, including online, hybrid, TelePresence, or face to face.

Please Note:

- **This program can be completed entirely online.**
- Students complete a full-time course load over a 16-week term. This term may include a combination of classes taken in an 8-week session and classes taken over the full 16-week term.
- 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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10103106	Microsoft Office-Introduction*	3
10809172	Introduction to Diversity Studies*	3
<b>Total credits</b>		<b>6</b>
Term		6 credits
10106106	Quality Customer Service*	3
10801136	English Composition 1*	3
<b>Total credits</b>		<b>12</b>

## course descriptions

### English Composition 1

**10801136 .....3 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.*

### Introduction to Diversity Studies

**10809172.....3 credits**

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored.

*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.*

### Microsoft Office-Introduction

**10103106 .....3 credits**

Develops introductory skills in the Microsoft Office Suite (Word, Excel, Access, PowerPoint, and Outlook) while reinforcing the students' knowledge of computer concepts, Windows Explorer, and web usage. Students should possess basic keyboarding, mouse and Windows 10 skills. Students may develop these skills in the LiNK while concurrently enrolled in this course.

### Quality Customer Service

**10106106 .....3 credits**

Addresses sensitivity in communicating with customers and co-workers. Includes international communications, teamwork, working relationships, and telephone skills.



# diesel & heavy equipment technician

## Technical Diploma

**Program Code: 32-412-1**

**Total Credits: 63**

Graduates of Mid-State's Diesel & Heavy Equipment Technician program have the knowledge and skills to confidently locate and repair mechanical and electrical problems in trucks, buses, construction equipment, farm equipment, and industrial machinery. Through hands-on classroom learning and training on state-of-the-art equipment, you will learn to perform preventive maintenance and troubleshooting procedures, rebuild components, and respond to field service calls. You'll also participate in field trips, tours, and equipment demonstrations, and you'll get real-world experience by maintaining Mid-State's vehicle fleet and operating onsite equipment.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

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- 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: \_\_\_\_\_  
\_\_\_\_\_

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**MID-STATE**  
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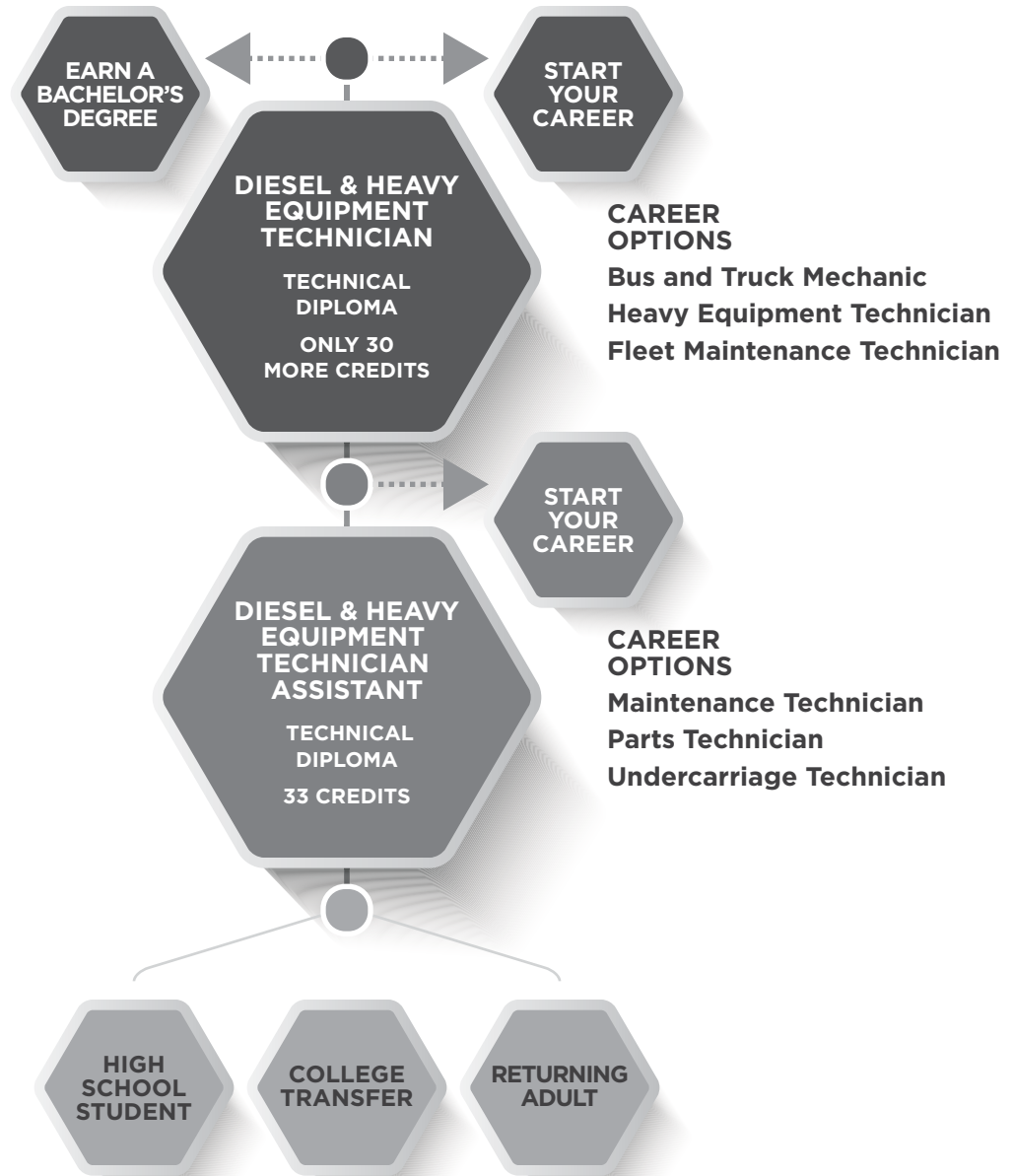
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**STEVENS POINT CAMPUS**  
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Stevens Point, WI 54481

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

## BACHELOR'S DEGREE OPTIONS

For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).



College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Automotive Maintenance Technician
- Automotive Technician

## PROGRAM OUTCOMES

Employers will expect you, as a Diesel & Heavy Equipment Technician graduate, to be able to:

- Diagnose major systems in the diesel and heavy equipment industry.
- Repair major systems in the diesel and heavy equipment industry.
- Service major systems in the diesel and heavy equipment industry.
- Practice personal and professional work habits.
- Document complaint, cause, and correction.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students are notified of TSA reporting in their final few courses of the program.

## PROTECTIVE CLOTHING

Students are required to wear school uniform shirts while working in the diesel shop. Uniform shirts can be purchased from the Wisconsin Rapids campus Bookstore. Students are also required to provide and wear leather work shoes with oil-resistant soles.

## NOTES:

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## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

**10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 ..... 2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 ..... 3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 ..... 3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*



# course descriptions

## Advanced Electricity-Diesel

**32412311 .....5 credits**

Learner receives advanced training in the theory, operating principles, and diagnosis and repair of vehicle electronic/electrical systems. Emphasis on diagnosis and repair of vehicle ignition, starting, charging, lighting, and electronic powertrain systems as related to the transportation, agriculture, and heavy equipment industry.

*Prerequisites: Admission to Diesel & Heavy Equipment Technician program 324121, Engine Repair 32412324, and Fuel Systems & Alternative Fuels 32412327*

## Applied Science

**32806351 .....2 credits**

This survey course in basic physics is designed for students in the Automotive Technician, Diesel & Heavy Equipment Technician, and Machine Tool Technician programs. Topics have been specially selected to provide students with basic support material for principles applied in the above listed programs. Topics to be covered include basic measurement skills; problem solving; motion; forces and energy transfer in linear and rotary systems; properties of solids, liquids and gases; temperature and heat; and basic DC electricity.

*Prerequisite: College Mathematics 10804107 with a grade of "C" or better.*

## Braking Systems-Diesel

**32412308 .....5 credits**

Learners employ fundamentals of vehicle braking systems, including drum, disc, hydraulic, and air systems to perform on vehicle diagnosis and repairs. Includes power and anti-skid systems, with emphasis on troubleshooting and component replacement.

*Prerequisite: Admission to Diesel & Heavy Equipment Technician program 324121 or Diesel & Heavy Equipment Technician Assistant program 314122*

## Capstone-Live Diesel Repair

**32412330 .....2 credits**

Learners have the opportunity to work on "live" diagnostic and repair projects and have their knowledge and skills assessed across a wide spectrum of projects provided by business and industry. Work orders, troubleshooting, parts ordering, installation, and quality checks are all elements included to provide real-life experiences as students prepare to begin their diesel and heavy equipment career.

*Prerequisites: Engine Repair 32412324 and Fuel Systems & Alternative Fuels 32412327; Corequisites: Engine Performance & Emissions-Diesel 32412310 and Advanced Electricity-Diesel 32412311*

## Career Development

**10102130 .....3 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

**10804107 .....3 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.*

## Drivetrains

**32412312 ..... 4 credits**

Learners practice on-vehicle diagnosis and repair of clutches, manual transmissions, drive shafts and universal joints, and drive axles. Provides general overview of the most common transmissions and drive train components used in industry. The diagnostic and service procedures studied apply to the truck, construction, and heavy equipment industries.

*Prerequisites: Admission to Diesel & Heavy Equipment Technician program 324121 or Diesel and Heavy Equipment Technician Assistant program 314122, Suspension & Steering Systems 32412309, and Braking Systems-Diesel 32412308*

## Electrical Systems

**32412313 ..... 4 credits**

Learners employ principles of construction, function, and operation of batteries, starting systems, charging systems, and controls. Incorporates basic electronics, including series and parallel circuits, magnetism and Ohm's Law, wiring schematics, soldering techniques, and use of diagnostic equipment.

*Prerequisites: Admission to Diesel & Heavy Equipment Technician program 324121 or Diesel & Heavy Equipment Technician Assistant program 314122 and Intro to Electricity for the Diesel Industry 32412340*

# course descriptions

## Employment Strategies

**10801199 .....3 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.

## Engine Performance & Emissions-Diesel

**32412310 .....5 credits**

Learners employ principles of construction, function, and operation of ignition systems, fuel systems, air induction systems, exhaust systems, emission control systems. Emphasizes the proper diagnosis, repair, and tune-up of system components as related to the transportation, agriculture, and heavy equipment industry. *Prerequisites: Admission to Diesel and Heavy Equipment Technician program 324121, Engine Repair 32412324, and Fuel Systems & Alternative Fuels 32412327*

## Engine Repair

**32412324 .....5 credits**

Learners disassemble, measure, and inspect all mechanical components of a diesel engine. This course emphasizes the diagnosis and repair of cylinder heads, valve train, cylinder Components, engine blocks, and related hardware. Also covers engine support systems, such as lubrication and cooling. *Prerequisites: Admission to Diesel & Heavy Equipment Technician program 324121 and Preventive Maintenance-Diesel*

## Fabrication Fundamentals 1

**10457119 .....1 credit**

An introduction to structural shapes and sheet metal fabrication. Presents fabrication techniques, metal selection, and layout, cutting, bending, drilling, threading, and joining using manual equipment and techniques. Information is presented to the student and followed up with lab activities to provide a hands-on experience. Emphasizes developing an understanding of the tools, techniques, safe work habits, and application of sheet metal fabrication skills.

## Fabrication Fundamentals 2

**10457120 .....1 credit**

An introduction to plate steel and heavy fabrication. Presents fabrication techniques using heavy fabrication equipment. CNC Cutting, Plate and Tube bending, Sawing and Shearing equipment will be presented and followed up with lab activities to provide a hands-on experience. Emphasizes developing an understanding of the equipment, techniques, safe work habits, and application of heavy metal fabrication skills.

## Fuel Systems & Alternative Fuels

**32412327 .....5 credits**

Learners employ principles of construction, function, and operation of low pressure fuel systems, governors, mechanical distributor pumps, multiple plunger pumps, electronic unit injectors, hydraulic actuated electronic unit injectors, and common rail fuel systems. This course emphasizes diagnosis and repair of mechanical, hydraulic, and common rail fuel systems. *Prerequisites: Admission to Diesel & Heavy Equipment Technician program 324121; Preventive Maintenance-Diesel 32412305*

## Heating/AC-Diesel

**32412303 .....3 credits**

Introduces the learner to the theory and operation of the heating and air conditioning systems found in transportation, farm, and heavy equipment industries. Focuses on the inspection, diagnoses, and repair of heating and air conditioning systems found in the diesel field. Learners have the opportunity to acquire their EPA 608 and 609 Certification. Offers experience in installation, operation, and repair of auxiliary power units along with refrigeration units. *Prerequisites: Admission to Diesel & Heavy Equipment Technician program 324121 and completion of Diesel & Heavy Equipment Technician Assistant program 314122*

## Intro to Electricity for the Diesel Industry

**32412340 .....1 credit**

Introduces learners to electrical measurement tools and techniques. Includes both hands-on experience and theory on topics including multimeter operation, Ohm's law, wiring diagram interpretation, and circuit testing. Content is focused on tools and procedures commonly used in automotive, and diesel/heavy equipment industries. Learners will have the opportunity to earn NC3 multimeter certification during this course. *Prerequisite: Admission to Diesel & Heavy Equipment Technician program 324121 or Diesel & Heavy Equipment Technician Assistant program 314122*

## Mobile Hydraulics Repair

**10462121 .....3 credits**

Learners employ basic principles and application of pumps, compressors, motors, valves, actuators, and conductors to demonstrate the understanding of hydraulic systems as well as the physical properties of liquids. Learners will identify various parts of a circuit in order to perform light maintenance and troubleshooting in hydraulic systems used on heavy truck, earth-moving, or agricultural equipment. *Prerequisite: Admission to Diesel & Heavy Equipment Technician program 324121 or Diesel & Heavy Equipment Technician Assistant program 314122*

## **Preventive Maintenance-Diesel**

**32412305 .....3 credits**

Introduces learner to vehicle preventive maintenance and inspection. Focuses on maintaining and inspecting the engine system, cab, electrical and electronics, and frame and chassis components with an emphasis on DOT inspections. Learners practice proper service on vehicle systems and perform a visual inspection of all vehicle components. Learners also practice how to properly document all maintenance and inspection findings.

*Prerequisites: Admission to Diesel & Heavy Equipment Technician program 324121 or Diesel & Heavy Equipment Technician Assistant program 314122 and Suspension & Steering Systems 32412309; Braking Systems-Diesel 32412308*

## **Service Practices in Diesel Industry**

**32412375 ..... 1 credit**

Introduces the learner to common tools, terminology, and service practices in the transportation field. Covers safety, environmental concerns, and basic customer relations. Service shop management practices and the use of automated work order, parts ordering, and time management concepts are included.

*Prerequisite: Admission to Diesel & Heavy Equipment Technician program 324121 or Diesel & Heavy Equipment Technician Assistant program 314122*

## **Suspension & Steering Systems**

**32412309 .....5 credits**

Analyze the construction and working principles of chassis components to perform on vehicle repairs. Includes instruction on frames, suspension systems, steering gears and linkages, wheels and tires, and wheel alignment. Learners practice on-vehicle diagnosis and repair of suspension and steering systems.

*Prerequisite: Admission to Diesel & Heavy Equipment Technician program 324121 or Diesel & Heavy Equipment Technician Assistant program 314122*

## **Welding Fundamentals 1**

**10442117 ..... 1 credit**

An introduction to fundamental welding techniques with an emphasis on safe work habits that covers the processes of SMAW, GMAW, and OXY-Fuel cutting. Classroom instruction paired with lab activities are designed to provide fundamental skills in each of the welding processes covered in the class.

## **Welding Fundamentals 2**

**10442118 ..... 1 credit**

An introduction to fundamental welding techniques with an emphasis on safe work habits that covers the processes of GTAW, FCAW and Plasma cutting. Classroom instruction paired with lab activities are designed to provide fundamental skills in each of the welding processes covered in the class.





# diesel & heavy equipment technician assistant

## Technical Diploma

**Program Code: 31-412-2**

**Total Credits: 33**

Mid-State's Diesel & Heavy Equipment Technician Assistant program provides students with the knowledge and technical skills needed to perform basic maintenance and light repairs in the following areas: brakes, suspension and steering, drive train, tire service, basic electricity, and preventive maintenance inspection. This one-year option is ideal for students looking to work in a fleet environment. Through hands-on classroom learning and training on state-of-the-art equipment, you will learn to perform preventive maintenance, inspection, and light repairs. You'll also participate in field trips, tours, and equipment demonstrations, and you'll get real-world experience by maintaining Mid-State's vehicle fleet and operating onsite equipment.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

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- Other: \_\_\_\_\_  
\_\_\_\_\_

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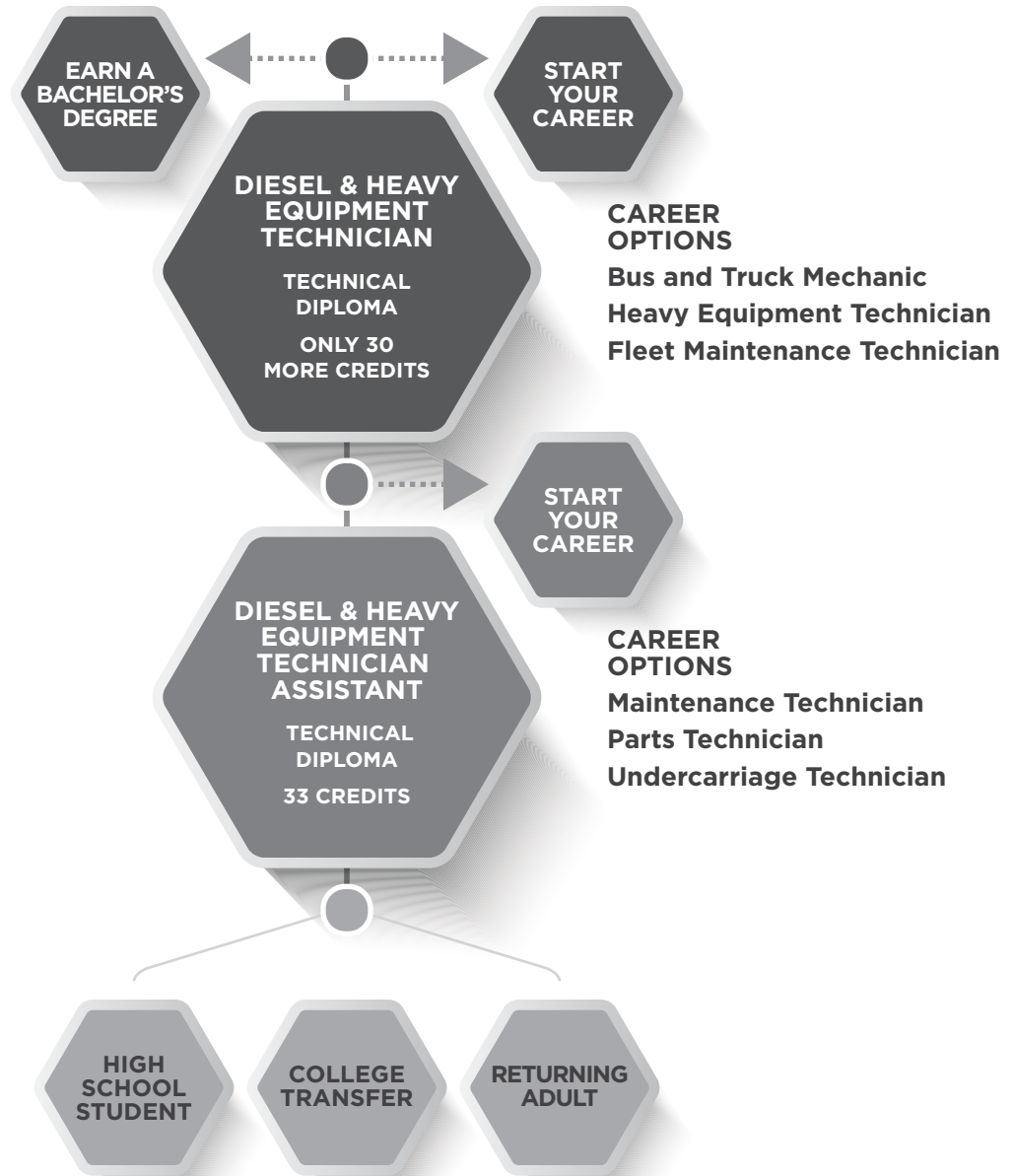
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## BACHELOR'S DEGREE OPTIONS

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College Credit • Dual Credit • Military Experience • Work Experience  
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## OTHER OPTIONS

### RELATED PROGRAMS

- Automotive Maintenance Technician
- Automotive Technician



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10442117	Welding Fundamentals 1	1
10442118	Welding Fundamentals 2	1
10457119	Fabrication Fundamentals 1	1
10457120	Fabrication Fundamentals 2	1
32412375	Service Practices in Diesel Industry	1
32412340	Intro to Electricity for the Diesel Industry	1
32412308	Braking Systems-Diesel	5
32412309	Suspension & Steering Systems	5

Term		17 credits
10462121	Mobile Hydraulics Repair	3
10801199	Employment Strategies	3
32412305	Preventive Maintenance-Diesel	3
32412312	Drivetrains	4
32412313	Electrical Systems	4

**Total credits 33**

**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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		10 credits
10442117	Welding Fundamentals 1	1
10442118	Welding Fundamentals 2	1
10457119	Fabrication Fundamentals 1	1
10457120	Fabrication Fundamentals 2	1
32412340	Intro to Electricity for the Diesel Industry	1
32412308	Braking Systems-Diesel	5

Term		6 credits
32412375	Service Practices in Diesel Industry	1
32412309	Suspension & Steering Systems	5

Term		9 credits
10462121	Mobile Hydraulics Repair	3
10801199	Employment Strategies	3
32412305	Preventive Maintenance-Diesel	3

Term		8 credits
32412312	Drivetrains	4
32412313	Electrical Systems	4

**Total credits 33**

## course descriptions

### Braking Systems-Diesel

**32412308 ..... 5 credits**

Learners employ fundamentals of vehicle braking systems, including drum, disc, hydraulic, and air systems to perform on vehicle diagnosis and repairs. Includes power and anti-skid systems, with emphasis on troubleshooting and component replacement.

*Prerequisite: Admission to Diesel & Heavy Equipment Technician program 324121 or Diesel & Heavy Equipment Technician Assistant program 314122*

### Drivetrains

**32412312 ..... 4 credits**

Learners practice on-vehicle diagnosis and repair of clutches, manual transmissions, drive shafts and universal joints, and drive axles. Provides general overview of the most common transmissions and drive train components used in industry. The diagnostic and service procedures studied apply to the truck, construction, and heavy equipment industries.

*Prerequisites: Admission to Diesel & Heavy Equipment Technician program 324121 or Diesel and Heavy Equipment Technician Assistant program 314122, Suspension & Steering Systems 32412309, and Braking Systems-Diesel 32412308*

### Electrical Systems

**32412313 ..... 4 credits**

Learners employ principles of construction, function, and operation of batteries, starting systems, charging systems, and controls. Incorporates basic electronics, including series and parallel circuits, magnetism and Ohm's Law, wiring schematics, soldering techniques, and use of diagnostic equipment.

*Prerequisites: Admission to Diesel & Heavy Equipment Technician program 324121 or Diesel & Heavy Equipment Technician Assistant program 314122 and Intro to Electricity for the Diesel Industry 32412340*

### Employment Strategies

**10801199 ..... 3 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.

## **Fabrication Fundamentals 1**

**10457119..... 1 credit**

An introduction to structural shapes and sheet metal fabrication. Presents fabrication techniques, metal selection, and layout, cutting, bending, drilling, threading, and joining using manual equipment and techniques. Information is presented to the student and followed up with lab activities to provide a hands-on experience. Emphasizes developing an understanding of the tools, techniques, safe work habits, and application of sheet metal fabrication skills.

## **Fabrication Fundamentals 2**

**10457120..... 1 credit**

An introduction to plate steel and heavy fabrication. Presents fabrication techniques using heavy fabrication equipment. CNC Cutting, Plate and Tube bending, Sawing and Shearing equipment will be presented and followed up with lab activities to provide a hands-on experience. Emphasizes developing an understanding of the equipment, techniques, safe work habits, and application of heavy metal fabrication skills.

## **Intro to Electricity for the Diesel Industry**

**32412340 ..... 1 credit**

Introduces learners to electrical measurement tools and techniques. Includes both hands-on experience and theory on topics including multimeter operation, Ohm's law, wiring diagram interpretation, and circuit testing. Content is focused on tools and procedures commonly used in automotive, and diesel/heavy equipment industries. Learners will have the opportunity to earn NC3 multimeter certification during this course.

*Prerequisite: Admission to Diesel and Heavy Equipment Technician program 324121 or Diesel and Heavy Equipment Technician Assistant program 314122*

## **Mobile Hydraulics Repair**

**10462121 ..... 3 credits**

Learners employ basic principles and application of pumps, compressors, motors, valves, actuators, and conductors to demonstrate the understanding of hydraulic systems as well as the physical properties of liquids. Learners will identify various parts of a circuit in order to perform light maintenance and troubleshooting in hydraulic systems used on heavy truck, earth-moving, or agricultural equipment.

*Prerequisite: Admission to Diesel & Heavy Equipment Technician program 324121 or Diesel & Heavy Equipment Technician Assistant program 314122*

## **Preventive Maintenance-Diesel**

**32412305 ..... 3 credits**

Introduces learner to vehicle preventive maintenance and inspection. Focuses on maintaining and inspecting the engine system, cab, electrical and electronics, and frame and chassis components with an emphasis on DOT inspections. Learners practice proper service on vehicle systems and perform a visual inspection of all vehicle components. Learners also practice how to properly document all maintenance and inspection findings.

*Prerequisites: Admission to Diesel & Heavy Equipment Technician program 324121 or Diesel & Heavy Equipment Technician Assistant program 314122 and Suspension & Steering Systems 32412309; Braking Systems-Diesel 32412308*

## **Service Practices in Diesel Industry**

**32412375 ..... 1 credit**

Introduces the learner to common tools, terminology, and service practices in the transportation field. Covers safety, environmental concerns, and basic customer relations. Service shop management practices and the use of automated work order, parts ordering, and time management concepts are included.

*Prerequisite: Admission to Diesel & Heavy Equipment Technician program 324121 or Diesel & Heavy Equipment Technician Assistant program 314122*

## **Suspension & Steering Systems**

**32412309 ..... 5 credits**

Analyze the construction and working principles of chassis components to perform on vehicle repairs. Includes instruction on frames, suspension systems, steering gears and linkages, wheels and tires, and wheel alignment. Learners practice on-vehicle diagnosis and repair of suspension and steering systems.

*Prerequisite: Admission to Diesel & Heavy Equipment Technician program 324121 or Diesel & Heavy Equipment Technician Assistant program 314122*

## **Welding Fundamentals 1**

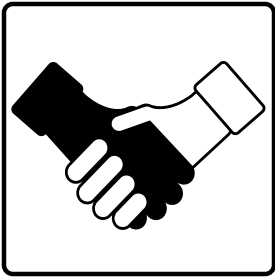
**10442117 ..... 1 credit**

An introduction to fundamental welding techniques with an emphasis on safe work habits that covers the processes of SMAW, GMAW, and OXY-Fuel cutting. Classroom instruction paired with lab activities are designed to provide fundamental skills in each of the welding processes covered in the class.

## **Welding Fundamentals 2**

**10442118 ..... 1 credit**

An introduction to fundamental welding techniques with an emphasis on safe work habits that covers the processes of GTAW, FCAW and Plasma cutting. Classroom instruction paired with lab activities are designed to provide fundamental skills in each of the welding processes covered in the class.



# digital marketing

## Associate in Applied Science (AAS) Program Code: 10-104-8 Total Credits: 63-65

Mid-State's Digital Marketing program builds the skills, experience, and connections critical to business success. Our graduates can confidently create inventive promotional campaigns, develop and implement graphic and video content, construct a dynamic social media presence, create an Internet marketing strategy, and analyze data essential for making effective business decisions. In this program you'll develop and polish your presentation skills to enable you to work in a multitude of industries. And you'll learn all of this from industry experts while using emerging technology and hands-on tools. Courses are transferable to bachelor's degree programs through a variety of transfer agreements.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://www.fafsa.gov))
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2600 West 5th Street  
Marshfield, WI 54449

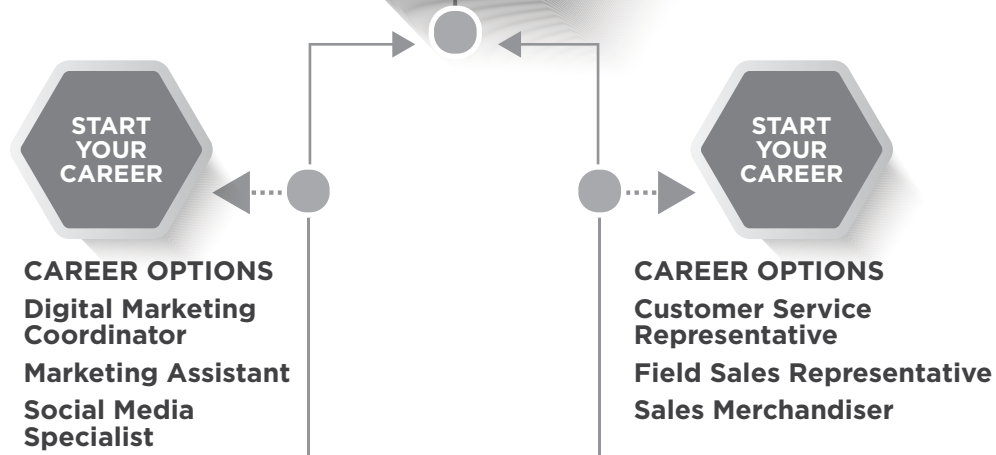
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1001 Centerpoint Drive  
Stevens Point, WI 54481

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

**BACHELOR'S DEGREE OPTIONS**

Herzing University, Marketing (BS)  
 Lakeland University, Marketing (BA)  
 UW-Stevens Point, Marketing (BS)

**For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**College Credit • Dual Credit  
 Military Experience • Work Experience  
 Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).**

**BEGIN AT ANY POINT  
 IN THE PATHWAY**

## PROGRAM OUTCOMES

Employers will expect you, as a Digital Marketing graduate, to be able to:

- Develop digital marketing strategies to anticipate and satisfy market needs.
- Create digital marketing content for products, services, images, and ideas.
- Integrate tools and technology for digital marketing initiatives.
- Analyze the effectiveness of marketing outcomes.
- Promote products, services, images, and/or ideas to achieve a desired outcome.
- Evaluate information through the market research process to make business decisions.
- Prepare selling strategies.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Marketing program outcomes are measured in the TSA-designated course Marketing Management.

## PROGRAM PROGRESSION

In order to maintain a passing status and progress in the program, students must:

- Receive a grade of “C” or better in Marketing Management.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State’s student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State’s Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

**10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 ..... 2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 ..... 3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 ..... 3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of “S.” (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*



## SAMPLE FULL-TIME CURRICULUM OPTION

<b>Term</b>		<b>15 credits</b>
10102101	Intro to Business	3
10103106	Microsoft Office-Introduction	3
10104102	Marketing Principles	3
10104108	Adobe Visual Design	3
10801136	English Composition 1	3
<b>Term</b>		
		<b>15-16 credits</b>
10103124	Excel-Intermediate	1
10104105	Professional Selling	3
10104107	Social Media Marketing	3
10104109	Adobe Video Design	3
10104110	Marketing Communications	2
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
	<b>-or-</b>	
10804189	Introductory Statistics	3
<b>Term</b>		
		<b>16-17 credits</b>
10101111	Accounting I	4
	<b>-or-</b>	
10102121	Finance and Budgeting	3
10104125	Promotion Management	4
10104174	Marketing Research	3
10104180	Internet and Mobile Marketing	3
10801196	Oral/Interpersonal Communication	<b>-or-</b>
10801198	Speech	3
<b>Term</b>		
		<b>17 credits</b>
10152187	Web Site Development for Business	3
10104111	Marketing Policy and Ethics	1
10104160	Marketing Management	4
10809122	Intro to American Government	<b>-or-</b>
10809172	Introduction to Diversity Studies	<b>-or-</b>
10809196	Intro to Sociology	3
10809188	Developmental Psychology	<b>-or-</b>
10809198	Intro to Psychology	3
10809195	Economics	3
<b>Total credits 63-65</b>		

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

<b>Term</b>		<b>7 credits</b>
10103106	Microsoft Office-Introduction	3
10104102	Marketing Principles	3
10104111	Marketing Policy and Ethics	1
<b>Term</b>		
		<b>9-10 credits</b>
10102101	Intro to Business	3
10104105	Professional Selling	3
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
	<b>-or-</b>	
10804189	Introductory Statistics	3
<b>Term</b>		
		<b>7 credits</b>
10103124	Excel-Intermediate	1
10104108	Adobe Visual Design	3
10801136	English Composition 1	3
<b>Term</b>		
		<b>8 credits</b>
10104107	Social Media Marketing	3
10104109	Adobe Video Design	3
10104110	Marketing Communications	2
<b>Term</b>		
		<b>7 credits</b>
10104125	Promotion Management	4
10801196	Oral/Interpersonal Communication	<b>-or-</b>
10801198	Speech	3
<b>Term</b>		
		<b>9-10 credits</b>
10101111	Accounting I	4
	<b>-or-</b>	
10102121	Finance and Budgeting	3
10104180	Internet and Mobile Marketing	3
10809188	Developmental Psychology	<b>-or-</b>
10809198	Intro to Psychology	3
<b>Term</b>		
		<b>9 credits</b>
10152187	Web Site Development for Business	3
10104174	Marketing Research	3
10809122	Intro to American Government	<b>-or-</b>
10809172	Introduction to Diversity Studies	<b>-or-</b>
10809196	Intro to Sociology	3
<b>Term</b>		
		<b>7 credits</b>
10104160	Marketing Management	4
10809195	Economics	3
<b>Total credits 63-65</b>		

# course descriptions

## Accounting I

**1010111..... 4 credits**

A beginning course designed especially for majors or those who need a strong foundation in accounting principles. Develops the accounting cycle of journaling, posting, adjusting, closing, and reporting. Also emphasizes service and merchandising sole proprietorships in developing the accounting cycle. Explores issues for accounting for cash, accounts and notes receivable, inventories, and fixed assets.

## Adobe Video Design

**10104109.....3 credits**

This course develops marketing communication skills in digital video production. Topics include collaboration, design, video production, and audio production using Adobe Premier. Learners will develop skills in storytelling, capturing and editing video and audio, and finalizing content for use in social media, web, and other marketing mediums. The design role of the marketer will be discussed throughout the class. Learners should possess basic keyboarding, mouse, and computer skills and should be familiar with Microsoft Windows.

## Adobe Visual Design

**10104108.....3 credits**

Provides a project-based, marketing-focused exploration of key Adobe graphic design products to include Photoshop, InDesign, and Illustrator. Students are instructed on document setup, creation techniques, and file formats for both digital and print media required for marketing communications. An introduction to the application of imagery, typography, and color management will also be included. The design role of the marketer will be discussed throughout the class. Learners should possess basic keyboarding, mouse, and computer skills and should be familiar with Microsoft Windows.

## College Mathematics

**10804107 .....3 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

**10809195 .....3 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.*

## English Composition 1

**10801136 .....3 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.*

## Excel-Intermediate

**10103124 ..... 1 credit**

Students learn to summarize and analyze large data sets. Some of Excel's data tools and what-if tools are applied.

*Prerequisite: Microsoft Office-Introduction 10103106 or Excel-Beginning 10103123*

## Finance and Budgeting

**10102121 .....3 credits**

For the nonfinancial manager, this course introduces the language of accounting, finance, and budgeting. Provides an overview of the use and analysis of financial statements. Business planning and the foundations and development of budgets are explored. Business financing basics and the securing of necessary financing for a business are covered. Practical application of financial statement creation and analysis, budgetary activities, and finance calculations are included.

## 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.*

## Internet and Mobile Marketing

**10104180 ..... 3 credits**

Introduces the fundamentals and methodologies for developing effective, Internet-based, digital marketing strategies. Specific areas of focus include search engine marketing (SEM) and optimization (SEO), pay-per-click (PPC), website analytics, webpage and content optimization, and best practices for online advertising and email marketing. Additionally, mobile marketing topics such as developing a mobile strategy, planning a mobile web presence, and the effective use of mobile apps and tactics are explored.

## Intro to American Government

**10809122 ..... 3 credits**

Introduces American political processes and institutions. Focuses on rights and responsibilities of citizens and the process of participatory democracy. Learners examine the complexity of the separation of powers and checks and balances. Explores the role of the media, interest groups, political parties, and public opinion in the political process. Also explores the role of state and national government in our federal system.

*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 Business

**10102101 ..... 3 credits**

An introduction to what a business is, how it operates, and how it is managed. Students identify forms of ownership and the processes used in production and marketing, finance, personnel, and management in business operations.

## Intro to Psychology

**10809198 ..... 3 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.*

## Intro to Sociology

**10809196 ..... 3 credits**

Introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions of family, politics, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, and social organization.

*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.*

## Introduction to Diversity Studies

**10809172 ..... 3 credits**

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored.

*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

**10804189 ..... 3 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.*

## Marketing Communications

**10104110 ..... 2 credits**

This course prepares the learner to create and manage a wide range of internal and external organizational communications that are essential to the marketing function. Learners will be instructed on the interpersonal communication techniques required for success as a marketing professional. Topics will include preparing professionally written content, effectively using verbal and non-verbal communication in a business setting, and developing a professional appearance and polish. Presentation techniques for the creation and delivery of complex marketing materials and data will be addressed. Additionally, there will be a focus on public relations to include writing press releases, managing crises, and speaking with the media.

# course descriptions

## Marketing Management

**10104160..... 4 credits**

Examines the marketing function from the manager's perspective. Topics include management functions, decision making in regard to the customer, product planning, pricing strategies, evaluation of distribution channels, and promotional tactics.

*Prerequisites: Marketing Principles 10104102, Adobe Visual Design 10104108, Adobe Video Design 10104109, Professional Selling 10104105, Social Media Marketing 10104107, Marketing Communications 10104110*

## Marketing Policy and Ethics

**10104111..... 1 credit**

This course will introduce the learner to ethical theories, value systems, and laws that are applicable to moral issues, problems, and situations which arise within the professional marketing environment.

## Marketing Principles

**10104102.....3 credits**

This course serves as an introduction to the fundamental marketing concepts used to apply marketing strategies to product development, distribution, pricing, and promotion of goods and services.

## Marketing Research

**10104174 .....3 credits**

Introduces techniques of research and research reporting. The study of market behavior is pursued as students undertake a marketing focused research project.

*Prerequisite: Marketing Principles 10104102*

## Microsoft Office-Introduction

**10103106 .....3 credits**

Develops introductory skills in the Microsoft Office Suite (Word, Excel, Access, PowerPoint, and Outlook) while reinforcing the students' knowledge of computer concepts, Windows Explorer, and web usage. Students should possess basic keyboarding, mouse and Windows 10 skills. Students may develop these skills in the LiNK while concurrently enrolled in this course.

## 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 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.*

## Professional Selling

**10104105.....3 credits**

This course will prepare the student to formulate and facilitate sales presentations using fundamental principles, concepts, and theories of business and consumer selling. An emphasis is given to developing the selling process which includes prospecting and qualifying, planning and pre-approaching, approaching the customer, the sales

presentation/demonstration, handling objections, closing the sale and post-sale service and follow-up. Additionally, sales careers and the benefits of personal selling will be explored.

## Promotion Management

**10104125 ..... 4 credits**

Focuses on the theory and practice of integrated marketing communications in order to develop content strategies and marketing campaigns. The fundamentals of multi-channel promotions as related to target audiences and the marketing mix are studied. The characteristics of major media alternatives including radio, television, newspapers, magazines, outdoor, direct response, and digital media are also explored. Finally, target market research, campaign planning, and creative approaches to messaging are practiced within a project-based learning environment.

*Prerequisite: Marketing Principles 10104102*

## Social Media Marketing

**10104107 .....3 credits**

Addresses how social media has transformed marketing communications from traditional mass media to individualized marketing. Using a variety of social media tools and platforms, this class explores the different methodologies for social media marketing. Topics include creating social media, integrating social media as part of a marketing campaign, the concept of viral marketing, measuring social media success through analytics, and how organizations and individuals have successfully applied this form of marketing.

## Speech

**10801198 .....3 credits**

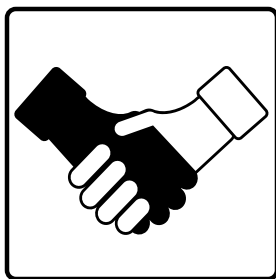
Explores the fundamentals of effective oral presentation to small and large groups. Topic selection, audience analysis, methods of organization, research, structuring evidence and support, delivery techniques, and other essential elements of speaking successfully, including the listening process, form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

## Web Site Development for Business

**10152187 .....3 credits**

This course introduces the student to basic web design using Hypertext Markup language (HTML) as well as web development software tools. Learners will create a personal web site using HTML tags and cascading style sheets. Using web development software, students will create a commercial web site using design elements and techniques for customer relationship building. Learners should possess basic keyboarding, mouse, and computer skills and should be familiar with Microsoft Windows.



# digital marketing promotions

## Technical Diploma Program Code: 30-104-8 Total Credits: 17

The Digital Marketing Promotions technical diploma prepares students to communicate with customers with an emphasis on the use of technology and digital media. Graduates are able to use graphic design and video editing software to create a variety of promotional materials to be used by traditional or online businesses. Courses are taught using hands-on projects that create marketing content using Adobe Photoshop, Illustrator, and InDesign for visual design. You'll also use Adobe Premiere to design and create videos. Finally, an emphasis is placed on planning and developing social media content, learning best practices for email marketing, implementing a variety of techniques for effective search engine marketing (SEM), and the use of analytics for better decision making.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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: \_\_\_\_\_  
\_\_\_\_\_

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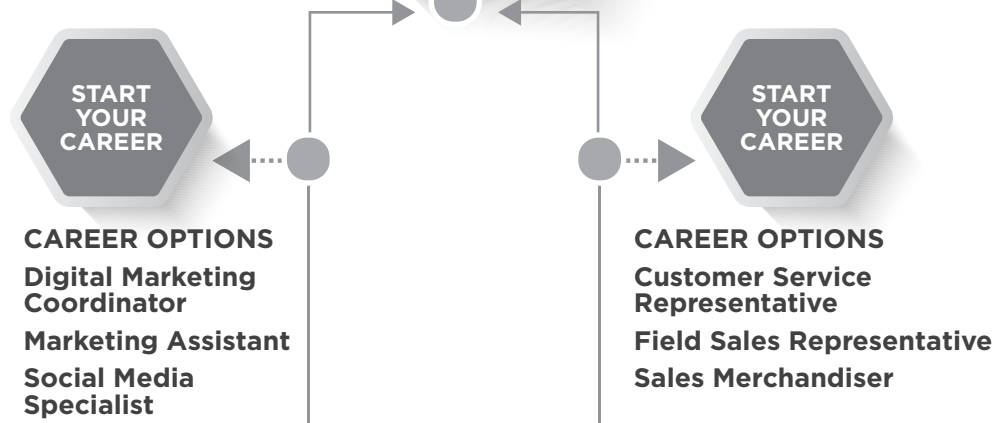
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**College Credit • Dual Credit  
 Military Experience • Work Experience  
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**BEGIN AT ANY POINT  
 IN THE PATHWAY**







## Adobe Video Design

**10104109.....3 credits**

This course develops marketing communication skills in digital video production. Topics include collaboration, design, video production, and audio production using Adobe Premier. Learners will develop skills in storytelling, capturing and editing video and audio, and finalizing content for use in social media, web, and other marketing mediums. The design role of the marketer will be discussed throughout the class. Learners should possess basic keyboarding, mouse, and computer skills and should be familiar with Microsoft Windows.

## Adobe Visual Design

**10104108.....3 credits**

Provides a project-based, marketing-focused exploration of key Adobe graphic design products to include Photoshop, InDesign, and Illustrator. Students are instructed on document setup, creation techniques, and file formats for both digital and print media required for marketing communications. An introduction to the application of imagery, typography, and color management will also be included. The design role of the marketer will be discussed throughout the class. Learners should possess basic keyboarding, mouse, and computer skills and should be familiar with Microsoft Windows.

## Internet and Mobile Marketing

**10104180.....3 credits**

Introduces the fundamentals and methodologies for developing effective, Internet-based, digital marketing strategies. Specific areas of focus include search engine marketing (SEM) and optimization (SEO), pay-per-click (PPC), website analytics, webpage and content optimization, and best practices for online advertising and email marketing. Additionally, mobile marketing topics such as developing a mobile strategy, planning a mobile web presence, and the effective use of mobile apps and tactics are explored.

## Marketing Communications

**10104110.....2 credits**

This course prepares the learner to create and manage a wide range of internal and external organizational communications that are essential to the marketing function. Learners will be instructed on the interpersonal communication techniques required for success as a marketing professional. Topics will include preparing professionally written content, effectively using verbal and non-verbal communication in a business setting, and developing a professional appearance and polish. Presentation techniques for the creation and delivery of complex marketing materials and data will be addressed. Additionally, there will be a focus on public relations to include writing press releases, managing crises, and speaking with the media.

## Marketing Principles

**10104102.....3 credits**

This course serves as an introduction to the fundamental marketing concepts used to apply marketing strategies to product development, distribution, pricing, and promotion of goods and services.

## Social Media Marketing

**10104107.....3 credits**

Addresses how social media has transformed marketing communications from traditional mass media to individualized marketing. Using a variety of social media tools and platforms, this class explores the different methodologies for social media marketing. Topics include creating social media, integrating social media as part of a marketing campaign, the concept of viral marketing, measuring social media success through analytics, and how organizations and individuals have successfully applied this form of marketing.



# early childhood education

## Associate in Applied Science (AAS) Program Code: 10-307-1 Total Credits: 60-61

Graduates of the Early Childhood Education program have the hands-on knowledge and skills to work confidently with young children in a variety of settings. Mid-State's program lets you work directly with teachers in early childhood educational settings and develop creative and educational activities within the teaching cycle. You'll also learn of the physical, emotional, intellectual, and social development of children spanning infancy through school age as well as how to recognize typical and exceptional patterns of growth.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

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- Financial Aid Form(s)  
Form(s): \_\_\_\_\_
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Where: \_\_\_\_\_  
When: \_\_\_\_\_  
With: \_\_\_\_\_
- Official Transcripts  
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1001 Centerpoint Drive  
Stevens Point, WI 54481
- Criminal Background Statement of Understanding and Release of Information Form
- Other: \_\_\_\_\_  
\_\_\_\_\_

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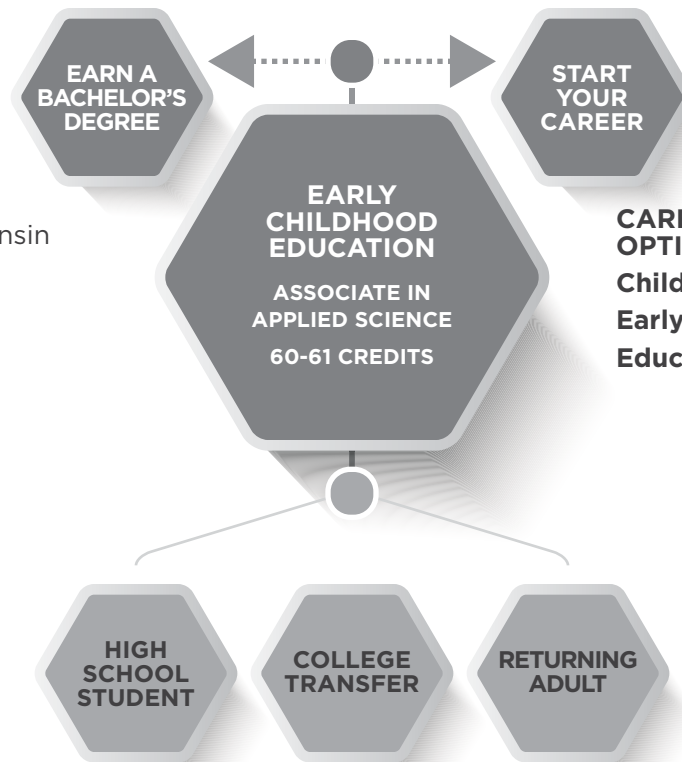
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## BACHELOR'S DEGREE OPTIONS

Ashford University  
Cardinal Stritch University  
Concordia University Wisconsin  
Lakeland University  
Northland College  
UW-Green Bay  
UW-La Crosse  
UW-Milwaukee  
UW-Oshkosh  
UW-Parkside  
UW-River Falls  
UW-Stevens Point  
UW-Stout  
UW-Superior  
UW-Whitewater

**For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).**



## CAREER OPTIONS

**Child Care Center Teacher  
Early Head Start Teacher  
Educational Assistant**

**College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).**

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## PROGRAM OUTCOMES

Employers will expect you, as an Early Childhood Education graduate, to be able to:

- Apply child development theory to practice.
- Cultivate relationships with children, families, and the community.
- Assess child growth and development.
- Use best practices in teaching and learning.
- Demonstrate professionalism.
- Integrate health, safety, and nutrition practices.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students will be assessed using a portfolio.

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Students enrolling in the Early Childhood Education program will have the opportunity to complete coursework toward specific registry credentials, including preschool, infant/toddler, and inclusion.

Students enrolled in practicum courses will combine classroom learning experiences with eight to twelve hours per week of purposeful experience in local early childhood centers working with children from infancy through school age.

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as an early childhood education provider is available at [mstc.edu/programs/early-childhood-education](https://mstc.edu/programs/early-childhood-education). Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## PROGRAM PROGRESSION AND COMPLETION

The following requirement must be met in order to progress in the Early Childhood Education program:

A Criminal Background Check (CBC) through the Wisconsin Department of Justice and Wisconsin Department of Health Services/Department of Children and Families/Bureau of Regulation and Licensing must show no record of crimes that would prevent persons from being employed in an early childhood setting licensed by the Department of Health Services/Department of Children and Families/Bureau of Regulation and Licensing. The background check process will include fingerprinting and will require students to visit a Fieldprint location in order to have their fingerprints scanned. A current list of crimes prohibiting one from being licensed to care for children in Wisconsin can be found at <https://dcf.wisconsin.gov/files/publications/pdf/5206.pdf>.

In order to progress in and successfully complete the program, students must:

- Repeat courses not completed with a “C” or better prior to progressing in core courses or other courses with co- or prerequisites.
- Receive a grade of “C” or better in all courses required for graduation.

Please note that the ability to repeat a course is dependent upon availability of all courses. Students may be required to apply for program re-entry in order to repeat a course within the program’s instructional area.

## PRACTICUM-RELATED REQUIREMENT

Prior to placement at a practicum site, students need to pay for a five-year criminal background check/fingerprint and provide documentation of required health work to the Mid-State Technical College Early Childhood Program coordinator. A background check will also be required to be completed on a yearly basis while in the program.

Practicum sites have the right to refuse a student’s placement based on inadequate health records, pending charges, or conviction records. Students with a criminal history may not be able to complete practicum courses. Mid-State will make two attempts to place a student in an appropriate practicum experience. If Mid-State is unable to place the student after two attempts, the student will be withdrawn from the practicum course and will not be able to advance in the program.

Prior to beginning a practicum experience students must:

- a. Provide evidence of current CPR/first aid, including infant and toddler.
- b. Provide evidence of current completion certificates for Shaken Baby Syndrome, Sudden Infant Death Syndrome, Mandated Reporter, and Darkness to Light Trainings.  
Note: Throughout each of the four practicum courses students are required to maintain current completion certificates in each of the above-listed topic areas. In the event that any certificate expires before the student successfully completes each of the four practicum courses, the student will be required to complete the necessary training to obtain a valid completion certificate. Any additional cost incurred to update the certificate(s) is the responsibility of the student.
- c. Complete form DCF/F(CFS/0054) Staff Health Report-Child Care Provider (revision date R02/2009).
- d. Successfully complete Wisconsin Early Learning Standards training.
- e. Meet the identified Technical Standards necessary to be successful in practicum placement.



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		18 credits
10307108	ECE: Early Language & Literacy	3
10307110	ECE: Soc S, Art, & Music	3
10307167	ECE: Health, Safety, & Nutrition	3
10307174	ECE: Introductory Practicum	3
10801136	English Composition 1	3
10801196	Oral/Interpersonal Communication -or-	
10801198	Speech	3

Term		15-16 credits
10307148	ECE: Foundations of Early Childhood Education	3
10307175	ECE: Preschool Practicum	3
10307179	ECE: Child Development	3
10307188	ECE: Guiding Children's Behavior	3
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
	<b>-or-</b>	
10804189	Introductory Statistics	3

Term		15 credits
10307112	ECE: STEM	3
10307151	ECE: Infant & Toddler Development	3
10307177	ECE: Intermediate Practicum	3
10307187	ECE: Children with Differing Abilities	3
10809172	Introduction to Diversity Studies -or-	
10809196	Intro to Sociology	3

Term		12 credits
10307195	ECE: Family and Community Relationships	3
10307199	ECE: Advanced Practicum	3
10809166	Intro to Ethics: Theory & Application -or-	
10809195	Economics	3
10809188	Developmental Psychology -or-	
10809198	Intro to Psychology	3

**Total Credits 60-61**

**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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		9 credits
10307110	ECE: Soc S, Art, & Music	3
10307148	ECE: Foundations of Early Childhood Education	3
10307108	ECE: Early Language & Literacy	3

Term		6 credits
10307179	ECE: Child Development	3
10809172	Introduction to Diversity Studies -or-	
10809196	Intro to Sociology	3

Term		6 credits
10307151	ECE: Infant & Toddler Development	3
10801196	Oral/Interpersonal Communication -or-	
10801198	Speech	3

Term		6 credits
10307188	ECE: Guiding Children's Behavior	3
10801136	English Composition 1	3

Term		6-7 credits
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
	<b>-or-</b>	
10804189	Introductory Statistics	3
10809188	Developmental Psychology -or-	
10809198	Intro to Psychology	3

Term		3 credits
10307167	ECE: Health, Safety, & Nutrition	3

Term		6 credits
10307174	ECE: Introductory Practicum	3
10307112	ECE: STEM	3

Term		6 credits
10307175	ECE: Preschool Practicum	3
10809166	Intro to Ethics: Theory & Application -or-	
10809195	Economics	3

Term		6 credits
10307177	ECE: Intermediate Practicum	3
10307187	ECE: Children with Differing Abilities	3

Term		6 credits
10307195	ECE: Family and Community Relationships	3
10307199	ECE: Advanced Practicum	3

**Total Credits 60-61**

## College Mathematics

### 10804107 .....3 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.*

## ECE: Advanced Practicum

### 10307199.....3 credits

In this final 3-credit practicum course you will demonstrate competence in supporting child development through observation, assessment and implementation of teaching strategies as you work in and learn about and apply the course competencies in an actual early childhood setting. You will demonstrate a high level of skill in fostering relationships with children, families and early childhood professionals, and use skills learned in a lead teacher role to develop a career plan to transition from student to early childhood education professional.

*Prerequisite: ECE: Intermediate Practicum 10307177*

## ECE: Child Development

### 10307179.....3 credits

The 3-credit course examines child development within the context of the early childhood education setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; analyze social, cultural, and economic influences on child development; summarize child development theories; analyze development of children ages three through five; analyze development of children ages five through eight; relate child development research findings to teaching practice; analyze the role of heredity and the environment; examine the role of brain development in early learning (ages 3-8); examine developmental and environmental assessment strategies for children ages 3-8.

## ECE: Children with Differing Abilities

### 10307187.....3 credits

This 3-credit course focuses on the child with differing abilities in an early childhood education setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; promote inclusive programs for young children; apply legal and ethical requirements including, but not limited to, ADA and IDEA; examine the consultation process to embed intervention in natural based settings; differentiate between typical and exceptional development; analyze the differing abilities of children with physical, cognitive, health/medical, communication, and/or behavioral/emotional disorders; identify community and professional resources; interpret an individual educational plan (IEP/IFSP) for children with developmental differences; adapt curriculum to meet the needs of children with developmental differences; examine strategies for cultivating partnerships with families who have children with developmental differences.

## ECE: Early Language & Literacy

### 10307108 .....3 credits

This course explores strategies to encourage the development of early language and literacy knowledge and skill building in children birth to 8 years of age. Learners will investigate the components of literacy including; literacy and a source of enjoyment, vocabulary and oral language, phonological awareness, knowledge of print, letters and words, comprehension and an understanding of books and other texts. Theories and philosophies regarding children's language and literacy development will be addressed. Dual language learning will be examined within the context of developmentally appropriate practices. Assessment tools for early language and literacy acquisition will be reviewed.

## **ECE: Family and Community Relationships 10307195.....3 credits**

In this 3-credit course you will examine the role of relationships with family and community in early childhood education. Course competencies include: implement strategies that support diversity, cultural responsiveness, and anti-bias perspectives when working with families and community; analyze contemporary family patterns and trends; identify strategies to strengthen and support families; explore effective communication strategies; discover strategies for developing respectful and reciprocal relationships with families; analyze strategies to promote family engagement in early childhood education programs; explore a variety of formats for meeting with families in their contexts; advocate for children and families; and explore community resources that provide a range of services for children and families.

## **ECE: Foundations of Early Childhood Education 10307148.....3 credits**

This 3-credit course introduces you to the early childhood profession. Course competencies include: explore the concepts of diversity, cultural responsiveness, and anti-bias as it relates to early childhood education, investigate the history of early childhood education, examine regulatory requirements for early childhood education programs in WI, summarize types of early childhood education settings, identify the components of a quality early childhood education program, summarize responsibilities of early childhood education professionals, explore early childhood curriculum models and examine the critical role of play as it relates to developmentally appropriate practice.

## **ECE: Guiding Children's Behavior 10307188.....3 credits**

This 3-credit course examines positive strategies to guide children's behavior in the early childhood education setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; analyze techniques for and effects of strong relationship-building with children and families; identify positive and proactive guidance principles and techniques to support children; analyze environmental influences on child behavior; identify strategies that support children's active engagement in the learning environment; identify strategies that proactively teach emotional literacy and regulation techniques; identify strategies that proactively teach friendship skills; identify strategies that proactively teach children calming, relaxation, and problem-solving techniques; utilize observation and assessment techniques to assess and interpret behavior; create a behavior support plan based on a functional behavior assessment; create a guidance philosophy. This course meets the requirements of the "24 hour Wisconsin" Pyramid Model training.

## **ECE: Health, Safety, & Nutrition 10307167.....3 credits**

This 3-credit course examines the topics of health, safety, and nutrition within the context of the early childhood educational setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; examine governmental regulations and professional standards as they apply to health, safety, and nutrition; plan a safe early childhood environment; plan a healthy early childhood environment; plan nutritionally sound menus; examine child abuse and neglect issues and mandates; describe Sudden Infant Death Syndrome (SIDS) risk reduction strategies, describe strategies to prevent the occurrence of Shaken Baby Syndrome (SBS); incorporate health, safety, and nutrition concepts into the children's curriculum.

## **ECE: Infant & Toddler Development 10307151.....3 credits**

In this 3-credit course you will study infant and toddler development as it applies to an early childhood education setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; analyze development of infants and toddlers (conception to thirty-six months); correlate prenatal and postnatal conditions with development; summarize child development theories; analyze the role of heredity and the environment; examine culturally and developmentally appropriate environments for infants and toddlers, examine the role of brain development in early learning (conception through thirty-six months); examine caregiving routines as curriculum; and examine developmental and environmental assessment strategies for infants and toddlers.

## **ECE: Intermediate Practicum 10307177.....3 credits**

In this 3-credit course you will be implementing regulations and standards for quality early childhood education, applying knowledge of child development and positive guidance, utilizing observation and assessment techniques, and assessing developmentally appropriate environments for children.

*Prerequisites: ECE: Introductory Practicum 10307174; ECE: Preschool Practicum 10307175; Corequisite: ECE: Infant and Toddler Development 10307151*

## **ECE: Introductory Practicum 10307174.....3 credits**

In this 3-credit practicum course you will learn about and apply the course competencies in an actual early childhood setting. You will explore the standards for quality early childhood education, demonstrate professional behaviors, and meet the requirements for training in the Wisconsin Model Early Learning Standards.

*Prerequisite: Admission to Early Childhood Education program 103071, Corequisites: ECE: Health, Safety, & Nutrition 10307167; ECE: Early Language & Literacy 10307108 OR ECE: Soc S, Art, & Music 10307110. Students must meet the state administrative code requirements to be in an Early Childhood Education setting (including both prior coursework and Caregiver Background Check).*



## ECE: Preschool Practicum

**10307175 .....3 credits**

This course will apply as the capstone course in The Registry Preschool Credential. You will be placed or working in an early childhood setting with 3-5 year old children and create a portfolio that prepares you for The Registry commission. In this course you will be implementing regulations and standards for quality early childhood education, applying knowledge of child development and positive guidance, utilizing observation and assessment techniques, and assessing developmentally appropriate environments for preschoolers.

*Prerequisite: Introductory Practicum 10307174; Corequisites: ECE: Early Language & Literacy 10307108, ECE: Soc S, Art, & Music 10307110; ECE: Child Development 10307179 and ECE: Guiding Children's Behavior 10307188*

## ECE: Soc S, Art, & Music

**10307110 ..... 3 credits**

This 3-credit course will focus on beginning level curriculum development in the specific integrated content areas of social studies, art, music, & movement (SSAMM).

## ECE: STEM

**10307112.....3 credits**

This 3-credit course will focus on the beginning level curriculum development in the specific integrated content areas of science, technology, engineering and mathematics.

## Economics

**10809195 .....3 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.*

## English Composition 1

**10801136 .....3 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.*

## 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

**10809166 .....3 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 Psychology

**10809198 .....3 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.*

## Intro to Sociology

**10809196 .....3 credits**

Introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions of family, politics, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, and social organization.

*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.*

## **Introduction to Diversity Studies**

**10809172.....3 credits**

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored. *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**

**10804189 .....3 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.*

## **Oral/Interpersonal Communication**

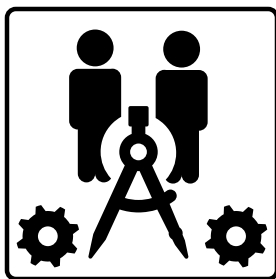
**10801196 .....3 credits**

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 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.*

## **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. 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.*



# electrical power engineering technician

## Associate in Applied Science (AAS)

**Program Code: 10-605-5**

**Total Credits: 61**

Unique in the Wisconsin Technical College System, Mid-State's Electrical Power Engineering Technician program prepares graduates to maintain vital energy systems that harness fossil, hydro, and nuclear energy sources. You'll learn the principles of high-voltage energy transmission and how to analyze instrument readings. You'll also learn how to locate equipment, design wiring layouts, route new power lines, specify materials, troubleshoot equipment and systems, and much more. You'll gain hands-on experience operating a bucket truck and take field trips to electrical power generation facilities, dispatch centers, substations, and motor repair facilities.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

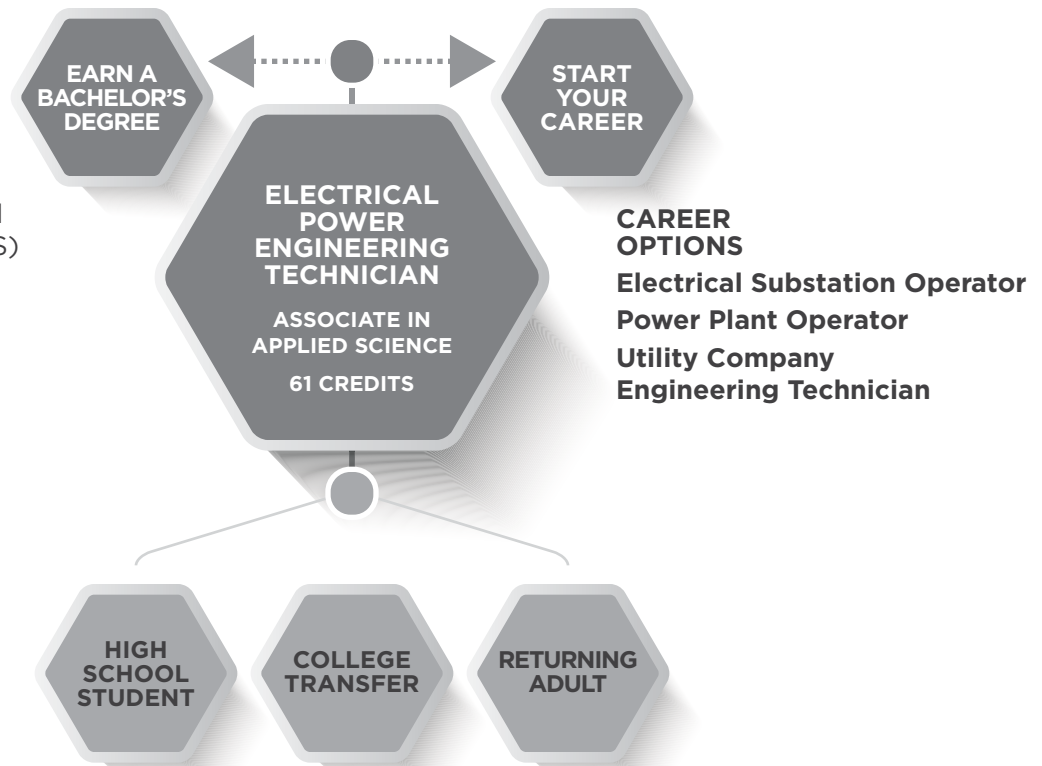
**STEVENS POINT CAMPUS**  
1001 Centerpoint Drive  
Stevens Point, WI 54481

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

## BACHELOR'S DEGREE OPTIONS

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

**For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**College Credit • Dual Credit • Military Experience • Work Experience**  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Civil Engineering Technology-Highway Technician
- Industrial Automation & Controls Engineering Technology

### APPRENTICESHIP OPPORTUNITIES

- Metering Technician Apprenticeship



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10103123	Excel-Beginning	1
10605105	Electrical Circuits I	3
10605120	Electrical Power Science	3
10623106	Intro to AutoCAD	1
10623115	Intro to Engineering	1
10801136	English Composition 1	3
10804118	Intermediate Algebra with Applications	4
Term		15 credits
10605110	Electrical Circuits II	3
10605115	Semiconductor Technology	3
10605122	Electrical Power Generation	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
10804196	Trigonometry with Applications	3
Term		15 credits
10605117	Automation 1 - Beginning PLC	3
10605125	Electrical Power Distribution	3
10605127	Electrical Machines	3
10804195	College Algebra with Applications	3
10806143	College Physics 1	3
Term		15 credits
10605124	Electrical Power Transmission	3
10605170	Electrical Power System Protective Relaying	3
10809122	Intro to American Government <b>-or-</b>	
10809166	Intro to Ethics: Theory & Application	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology Elective	3
		3
<b>Total credits</b>		<b>61</b>

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		8 credits
10605105	Electrical Circuits I	3
10623115	Intro to Engineering	1
10804118	Intermediate Algebra with Applications	4
Term		7 credits
10103123	Excel-Beginning	1
10605110	Electrical Circuits II	3
10804196	Trigonometry with Applications	3
Term		7 credits
10605120	Electrical Power Science	3
10623106	Intro to AutoCAD	1
10801136	English Composition 1	3
Term		9 credits
10605115	Semiconductor Technology	3
10605122	Electrical Power Generation	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
Term		9 credits
10605117	Automation 1 - Beginning PLC	3
10605125	Electrical Power Distribution	3
10804195	College Algebra with Applications	3
Term		9 credits
10605170	Electrical Power System Protective Relaying	3
10809122	Intro to American Government <b>-or-</b>	
10809166	Intro to Ethics: Theory & Application	3
	Elective	3
Term		6 credits
10605127	Electrical Machines	3
10806143	College Physics 1	3
Term		6 credits
10605124	Electrical Power Transmission	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3
<b>Total credits</b>		<b>61</b>

# course descriptions

## Automation 1 - Beginning PLC

**10605117 .....3 credits**

An overview of programmable logic controllers (PLCs) that provides a foundation of knowledge of the programming techniques, operation, and maintenance of PLCs used in typical industrial automation.

## College Algebra with Applications

**10804195 .....3 credits**

Covers the skills needed for success in calculus and many application areas on a baccalaureate level. Topics include the real and complex number systems, polynomials, exponents, radicals, solving equations and inequalities (linear and nonlinear), relations and functions, systems of equations and inequalities (linear and nonlinear), matrices, graphing, conic sections, sequences and series, combinatorics, and the binomial theorem.

*Prerequisite: Trigonometry with Applications 10804196 with a grade of "C" or better or Intermediate Algebra with Applications 10804118 with a grade of "C" or better. Students without Trigonometry with Applications are encouraged to bring transcripts for individual course evaluation.*

## College Physics 1

**10806143 .....3 credits**

Presents the applications and theory of basic physics principles. This course emphasizes problem solving, laboratory investigation and applications. Topics include laboratory safety, unit conversions and analysis, kinematics, dynamics, work, energy, power, temperature and heat.

*Corequisite: Trigonometry with Applications 10804196*

## 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.*

## Electrical Circuits I

**10605105 .....3 credits**

An introduction to AC/DC electricity and the physical laws that apply to electronic circuits. Direct current (DC) covers basic definitions of voltage, current, and resistance and analysis of series and parallel resistive circuits. Alternating current (AC) includes an introduction to AC generation, capacitors, inductors, and transformers and their applications in electronic circuits. Approximately 50 percent of the course is spent in the laboratory applying the principles and theory presented in the classroom.

*Corequisite: Intermediate Algebra with Applications 10804118*

## Electrical Circuits II

**10605110 .....3 credits**

Continues the study of AC/DC circuits started in Electrical Circuits I. Introduces advanced DC circuit analysis techniques such as Thevenin's Theorem and nodal analysis. Includes discussion of voltage and power theorems used in the analysis of AC circuits consisting of both resistance and reactance. The complex plane and construction of phasor diagrams are also discussed. Concludes with an introduction to electronic filter circuits used in transmission and communication equipment. Approximately 50 percent of the course is spent in the laboratory, applying the principles and theory presented in the classroom.

*Prerequisite: Electrical Circuits I 10605105 with a "C" or better; Corequisite: Trigonometry with Applications 10804196*

## Electrical Machines

**10605127 .....3 credits**

Teaches the fundamentals of generators and motors. Covers DC and AC generators and motors.

*Prerequisite: Electrical Circuits I 10605105*

## Electrical Power Distribution

**10605125.....3 credits**

Designed to teach the principles of distribution systems and substations. Covers wire capacity, sag, guying, supporting structures, troubleshooting, insulators, lightning arresters, switches, and recloser and power circuit breakers. Students apply distribution standards of an actual utility to the building and design of a power line on paper.

*Prerequisites: Electrical Circuits I 10605105 and Electrical Power Generation 10605122*

## Electrical Power Generation

**10605122.....3 credits**

A study of equipment and facilities used in the production of electricity. Topics include fuels, prime mover turbines, and generators. Emphasizes safety controls, efficient production, and operational procedures. Concludes with computer-simulated operation of a large power station boiler. It is recommended that students take Electrical Power Science 10605120 prior to taking this course.

## Electrical Power Science

**10605120 .....3 credits**

An introduction to the field of electrical power technology. Covers the power generation process, transmission techniques, and networks. Topics include prime energy sources, converting raw energy into electrical energy, metering electricity, and disbursing electrical energy from generation plant to consumer.

## Electrical Power System Protective Relaying

**10605170 .....3 credits**

A study of controlling devices and systems utilized in generation, distribution, and transmission of electricity. Students study instrument transformers, protective relays, protective systems, power system standards, drawing conventions, equipment rating terminology, insulation, circuit interrupting devices, grounding, and power system faults.

*Prerequisite: Electrical Machines 10605127*

## Electrical Power Transmission

**10605124 .....3 credits**

Covers the basic principles of high-voltage transmission of electrical energy. Introduces students to the concepts of active, reactive, and apparent power in electric power technology. Discusses basic properties of single- and three-phase transformers and their importance to power transmission. The behavior of ideal and practical (or non-ideal) transformers are used as a building block to explain the electrical function of a transformer in many transmission circuits. Discusses basic mechanical (supporting structures, line sag, galloping and the effect of weather) and electrical (e.g., corona, pollution, insulation, lightning) requirements that must be met for successful power transmission over large distances. Approximately 50 percent of the course is spent in the laboratory working with equipment that simulates power transmission.

*Prerequisites: Electrical Machines 10605127 and Electrical Power Distribution 10605125*

## English Composition 1

**10801136 .....3 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.*

## Excel-Beginning

**10103123..... 1 credit**

Students learn to create, modify, and format spreadsheets, charts, and graphics. Students also learn to perform calculations and analysis on data.

## 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 American Government

**10809122.....3 credits**

Introduces American political processes and institutions. Focuses on rights and responsibilities of citizens and the process of participatory democracy. Learners examine the complexity of the separation of powers and checks and balances. Explores the role of the media, interest groups, political parties, and public opinion in the political process. Also explores the role of state and national government in our federal system.

*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 AutoCAD

**10623106 ..... 1 credit**

This introductory course in computer-aided drafting (CAD) using AutoCAD software provides foundation skills in using CAD software to create and print two-dimensional technical drawings. This course is available to students in any program. Computer skills and prior knowledge of drawing/drafting techniques is recommended.

## Intro to Engineering

**10623115..... 1 credit**

This introductory course in engineering focuses on engineering concepts of analysis through resolution of dimensions in problem solving, life cycle cost, and logic/reasoning.

*Corequisite: Intermediate Algebra w/Apps 10804118 or consent of instructor*

## Intro to Ethics: Theory & Application

**10809166 .....3 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 Psychology

**10809198 .....3 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.*



## **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 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.*

## **Semiconductor Technology**

**10605115 .....3 credits**

Presents semi-conductor principles with emphasis on practical applications. After reviewing diode and transistor characteristics, studies bias stabilizing techniques followed by an introduction to transistor amplifiers.

*Corequisite: Electrical Circuits II 10605110*

## **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. 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.*

## **Trigonometry with Applications**

**10804196 .....3 credits**

Topics include circular functions, graphing of trigonometry functions, identities, equations, trigonometric functions of angles, inverse functions, solutions of triangles, complex numbers, DeMoivre's Theorem, polar coordinates, and vectors.

*Prerequisite: Intermediate Algebra with Applications 10804118 with a grade of "C" or better. Students without Intermediate Algebra with Applications are encouraged to bring transcripts for individual course evaluation.*



# emergency medical technician

## Technical Diploma Program Code: 30-531-3 Total Credits: 5

The Emergency Medical Technician (EMT) program at Mid-State prepares students with the knowledge and skills needed to work as an entry-level EMT. This hands-on 180-hour program consists of classroom lectures, practical skill labs, laboratory simulations, and pre-hospital clinical experiences. Successfully completing the program qualifies you to take the National Registry of EMT's certification exam required to apply for state licensure. Graduates of the Emergency Medical Technician technical diploma may advance into either the EMT-Paramedic program or Paramedic Technician program.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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
- Criminal Background Statement of Understanding and Release of Information Form
- Other: \_\_\_\_\_  
\_\_\_\_\_

**mstc.edu**  
**888.575.6782**



**MID-STATE**  
TECHNICAL COLLEGE

**ADAMS CAMPUS**  
401 North Main  
Adams, WI 53910

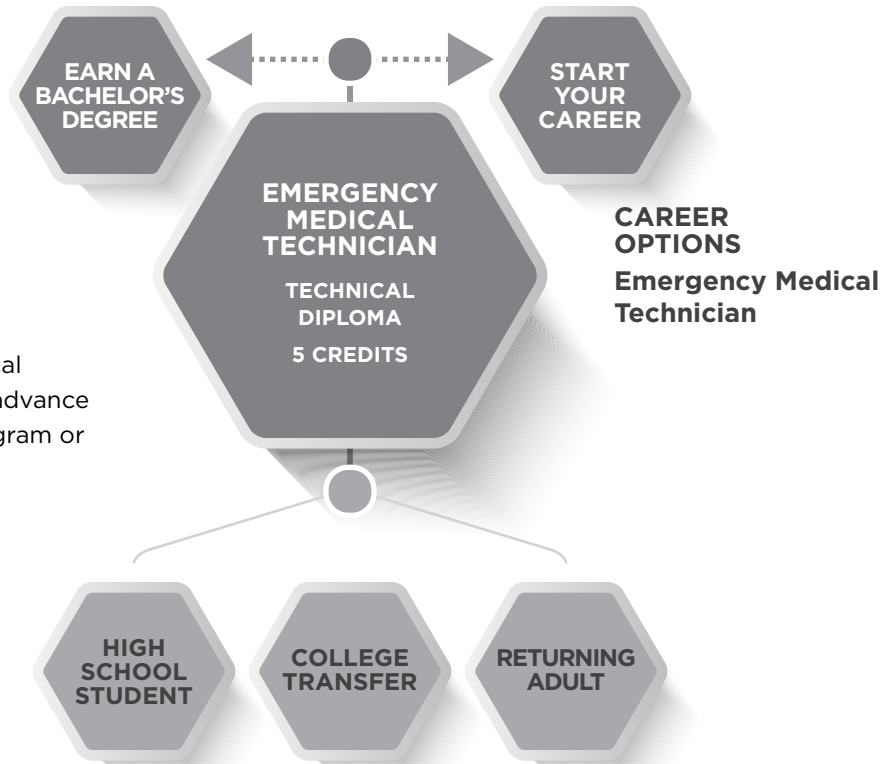
**MARSHFIELD CAMPUS**  
2600 West 5th Street  
Marshfield, WI 54449

**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

For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).



Graduates of the Emergency Medical Technician technical diploma may advance into either the EMT-Paramedic program or Paramedic Technician program.

**College Credit • Dual Credit • Military Experience • Work Experience**  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

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## OTHER OPTIONS

### RELATED PROGRAMS

- Corrections & Community Advocacy
- Criminal Justice-Law Enforcement 720 Academy
- Criminal Justice-Studies
- Emergency Services Management
- EMT-Paramedic
- Fire Protection Technician
- Paramedic Technician

## PROGRAM OUTCOMES

Employers will expect you, as an Emergency Medical Technician graduate, to be able to:

- Prepare for incident response and EMS operations.
- Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
- Demonstrate EMT skills associated with established standards and procedures for a variety of patient encounters.
- Communicate effectively with others.
- Demonstrate professional behavior.
- Meet state competencies for EMT certification.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students are notified of TSA reporting during the program orientation on the first day of class.

## ADDITIONAL ENTRY CRITERIA

To apply to the Emergency Medical Technician program, please submit the following document to Mid-State Admissions:

- Criminal Background Statement of Understanding and Release of Information form.

**Mid-State Technical College • Admissions**  
500 32nd Street North, Wisconsin Rapids, WI 54494

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as an emergency medical technician is available at [mstc.edu/programs/emergency-medical-technician](http://mstc.edu/programs/emergency-medical-technician). Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## CLINICAL-RELATED REQUIREMENTS

Prior to placement at a clinical site, students need to pay for a criminal background check through a private vendor. Students will be required to provide documentation of required health work and current healthcare provider CPR certification via a Blackboard assignment. Students are responsible for ensuring all requirements remain current during program enrollment.

Clinical sites have the right to refuse a student's placement based on inadequate health records, pending charges, or conviction records. Students with a criminal history may not be able to complete clinical courses. Mid-State will make two attempts to place a student in an appropriate clinical experience. If Mid-State is unable to place the student after two attempts, the student will be withdrawn from the course and will not be able to advance in the program.

Prior to beginning a clinical experience in a health care agency or ambulance service, students must:

- a. Provide evidence of completion of the required health work.
- b. Hold a Department of Health Services EMS Training Center Training Permit at the EMT level.

- c. Provide evidence of current CPR at the health care professional level by a CPR organization specified under s. DHS 110.17(1).
- d. Obtain the required uniform for clinical experiences.
- e. Assume responsibility for clinical assignment(s) regardless of time and location, including transportation and other personal arrangements.

## PROGRAM PROGRESSION

In order to be eligible to take the National Registry of Emergency Medical Technician's examination, students must:

- Receive a minimum grade of "C" in all courses within the Emergency Medical Technician program.
- A minimum grade of "C" is required in EMT Foundations in order to progress on to the EMT Applications course. The entire five credits must be completed consecutively in the same academic year in order to be eligible for National Registry testing.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 .....2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 .....3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 .....3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*





# emergency services management

## Associate in Applied Science (AAS) Program Code: 10-503-5 Total Credits: 60

Mid-State's Emergency Services Management program will strengthen and advance the knowledge and skills needed for firefighters and paramedics to become supervisors. The program focuses on topics such as personnel management, risk management, OSHA, legal aspects, and community relations. Fire and EMS tracks are available to allow students an opportunity to pursue additional knowledge in their area of interest or career path. This program is online, thus the experiences will be different from a traditional course. Activities in class will strengthen collaboration, problem-solving, critical thinking, and research.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

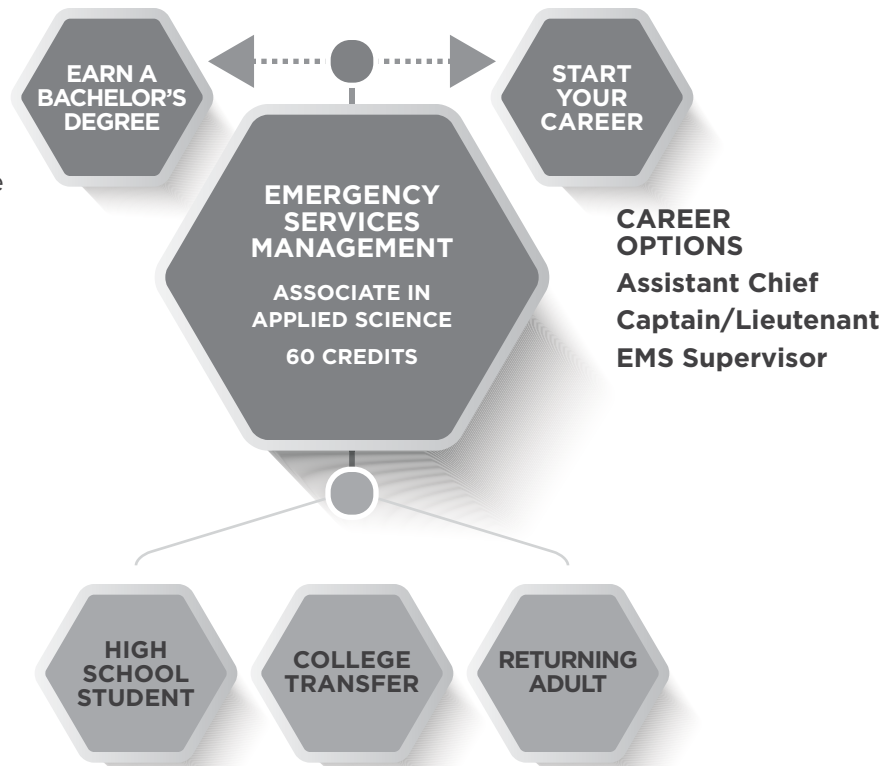
**STEVENS POINT CAMPUS**  
1001 Centerpoint Drive  
Stevens Point, WI 54481

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

## BACHELOR'S DEGREE OPTIONS

UW-Oshkosh,  
Fire & Emergency Response  
Management (BAS)

**For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**College Credit • Dual Credit • Military Experience • Work Experience**  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

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## OTHER OPTIONS

### RELATED PROGRAMS

- Corrections & Community Advocacy
- Criminal Justice-Law Enforcement 720 Academy
- Criminal Justice-Studies
- Emergency Medical Technician
- EMT-Paramedic
- Fire Protection Technician
- Paramedic Technician

## PROGRAM OUTCOMES

Employers will expect you, as an Emergency Services Management graduate, to be able to:

- Demonstrate the professional responsibilities of a fire or emergency services manager.
- Demonstrate critical and creative thinking in the problem-solving process.
- Apply research and best practices in the fire or emergency services professions.
- Demonstrate the professional attributes necessary for a fire or emergency services manager to lead effectively.
- Apply the legal, ethical, and regulatory standards that relate to the fire or emergency services.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students are notified of TSA reporting in their final few courses of the program.

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as a fire protection technician is available at [mstc.edu/programs/emergency-services-management](http://mstc.edu/programs/emergency-services-management). Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## PROGRAM PROGRESSION

Students must receive a grade of “C” or better in each of the technical and general education courses in order to qualify for graduation.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State’s student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State’s Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

**10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 ..... 2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 ..... 3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 ..... 3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of “S.” (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10503102	Intro to Emergency Services	5
10503121	Emergency Services Safety and Survival	2
10503143	Building Construction for Fire Protection <b>-or-</b>	
10531170	Intro to Evidence-Based EMS	3
10546100	Essential Concepts for Health and Wellness	3
10801136	English Composition 1	3
Term		16 credits
10503122	Principles of Emergency Services Administration	4
10503123	Occupational Safety and Health for Emergency Services	3
10503195	Fire Behavior & Combustion <b>-or-</b>	
10531171	EMS Leadership Challenges	3
10804107	College Mathematics	3
10809166	Intro to Ethics: Theory & Application	3
Term		15 credits
10503124	Emergency Services Instructor	3
10503125	Personnel Management for Emergency Services	3
10503126	Legal Aspects of Emergency Services	3
10503127	Community Risk Reduction	3
10809198	Intro to Psychology	3
Term		13 credits
10503128	Public Information and Community Relations	3
10503156	Strategies, Tactics, & Incident Management <b>-or-</b>	
10531172	Supervision of EMS Special Operations	4
10801197	Technical Reporting	3
10809122	Intro to American Government <b>-or-</b>	
10809172	Introduction to Diversity Studies <b>-or-</b>	
10809196	Intro to Sociology	3
<b>Total credits 60</b>		

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		10 credits
10503102	Intro to Emergency Services	5
10503121	Emergency Services Safety and Survival	2
10503143	Building Construction for Fire Protection <b>-or-</b>	
10531170	Intro to Evidence-Based EMS	3
Term		9 credits
10503123	Occupational Safety and Health for Emergency Services	3
10503195	Fire Behavior & Combustion <b>-or-</b>	
10531171	EMS Leadership Challenges	3
10809166	Intro to Ethics: Theory & Application	3
Term		6 credits
10546100	Essential Concepts for Health and Wellness	3
10801136	English Composition 1	3
Term		7 credits
10503122	Principles of Emergency Services Administration	4
10804107	College Mathematics	3
Term		9 credits
10503126	Legal Aspects of Emergency Services	3
10503127	Community Risk Reduction	3
10809198	Intro to Psychology	3
Term		7 credits
10503156	Strategies, Tactics, & Incident Management <b>-or-</b>	
10531172	Supervision of EMS Special Operations	4
10801197	Technical Reporting	3
Term		6 credits
10503124	Emergency Services Instructor	3
10503125	Personnel Management for Emergency Services	3
Term		6 credits
10503128	Public Information and Community Relations	3
10809122	Intro to American Government <b>-or-</b>	
10809172	Introduction to Diversity Studies <b>-or-</b>	
10809196	Intro to Sociology	3
<b>Total credits 60</b>		

## Building Construction for Fire Protection

**10503143.....3 credits**

Provides the components of building construction related to firefighter and life safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, pre-planning fire operations, and operating at emergencies.

*Prerequisite: Admission to Fire Protection Technician program 105032 or Emergency Services Management program 105035*

## College Mathematics

**10804107 .....3 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.*

## Community Risk Reduction

**10503127.....3 credits**

Prepares the student to understand the assessment of community risk, the analysis of risk, risk communication, risk problem-solving, and mitigation efforts.

*Prerequisite: Intro to Emergency Services 10503102*

## Emergency Services Instructor

**10503124.....3 credits**

Introduces the emergency services professional to the education system as it relates to fire and EMS education. Students explore issues in curriculum development, teaching, program direction, and development.

*Prerequisite: Intro to Emergency Services 10503102*

## Emergency Services Safety and Survival

**10503121 .....2 credits**

Broadens the scope of the national firefighter life safety initiatives and emphasizes their importance at the supervisory and managerial levels. The life safety initiatives are examined from firefighter and EMS provider perspectives.

*Prerequisite: Intro to Emergency Services 10503102*

## EMS Leadership Challenges

**10531171.....3 credits**

Explores the unique challenges that face EMS leaders in today's environment. Emphasizes key issues such as recruitment, retention, education, and mental health.

## English Composition 1

**10801136 .....3 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.*

## Essential Concepts for Health and Wellness

**10546100 .....3 credits**

An introductory course focusing on basic health and wellness promotion principles at the individual level. Basic principles include physical, mental, and spiritual. Students explore a holistic view of health and wellness concepts covering healthy lifestyle choices, managing stress, individual wellness perspective and how economics can positively and negatively impact the health and wellness of an individual.

## Fire Behavior & Combustion

**10503195.....3 credits**

Explores the theories and fundamentals of how and why fires start, spread, and are controlled.

*Prerequisite: Building Construction for Fire Protection 10503143 or Intro to Emergency Services 10503102*

## Intro to American Government

**10809122.....3 credits**

Introduces American political processes and institutions. Focuses on rights and responsibilities of citizens and the process of participatory democracy. Learners examine the complexity of the separation of powers and checks and balances. Explores the role of the media, interest groups, political parties, and public opinion in the political process. Also explores the role of state and national government in our federal system.

*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 Emergency Services

**10503102 .....5 credits**

This course is fulfilled only through credit transfer or credit for prior learning. In order to receive this credit, the student must possess either Wisconsin Firefighter 1 certification (or out-of-state equivalent) or certification as an emergency medical technician or higher.

*Prerequisite: Admission to Emergency Services Management program 105035*

## Intro to Ethics: Theory & Application

**10809166 .....3 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 Evidence-Based EMS

**10531170.....3 credits**

Examines evidence-based medicine and its application to EMS operations. Topics of study include airway management, cardiac resuscitation, prehospital ultrasound, dispatch policies, and others.

## Intro to Psychology

**10809198 .....3 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.*

## Intro to Sociology

**10809196 .....3 credits**

Introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions of family, politics, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, and social organization.

*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.*

## Introduction to Diversity Studies

**10809172.....3 credits**

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored.

*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.*

## Legal Aspects of Emergency Services

**10503126.....3 credits**

Addresses the federal, state, and local laws that regulate emergency services and includes a review of national standards, regulations, and consensus standards.

*Prerequisite: Intro to Emergency Services 10503102*

## Occupational Safety and Health for Emergency Services

**10503123.....3 credits**

Introduces the basic concepts of occupational health and safety as it relates to emergency services organizations.

Topics include risk and hazard evaluation and control procedures for emergency service organizations.

*Prerequisite: Intro to Emergency Services 10503102*

## Personnel Management for Emergency Services

**10503125.....3 credits**

Examines personnel administration and the development of human resources. Topics of study include personnel management, organizational development, productivity, recruitment and selection, performance management systems, discipline, and collective bargaining.

*Prerequisite: Intro to Emergency Services 10503102*

## Principles of Emergency Services Administration

**10503122.....4 credits**

Demonstrates the importance of the following skills necessary to manage and lead a fire and emergency services department through the challenges and changes of the 21st century: persuasion and influence, accountable budgeting, anticipation of challenges and the need for change, and using specific management tools for analyzing and solving problems.

*Prerequisite: Intro to Emergency Services 10503102*

## Public Information and Community Relations

**10503128.....3 credits**

Introduces the emergency services professional to the benefits of community information and community relations. Students explore issues in marketing, developing the message, identifying the audience, developing programs, and creating press releases.

*Prerequisite: Intro to Emergency Services 10503102*

## **Strategies, Tactics, & Incident Management**

**10503156..... 4 credits**

Provides the principles of fire ground control through use of personnel, equipment, and extinguishing agents.

*Prerequisite: Firefighting Principles 10503142 or Intro to Emergency Services 10503102*

## **Supervision of EMS Special Operations**

**10531172..... 4 credits**

Explores the supervisor's role in special EMS operations, such as triage, mass casualty incidents, rehabilitation, and operating in tactical environments.

## **Technical Reporting**

**10801197 .....3 credits**

The student prepares and presents oral and written technical reports. Types of reports may include lab and field reports, proposals, technical letters and memos, technical research reports, and case studies. Designed as an advanced communication course for students who have completed at least the prerequisite introductory writing course.

*Prerequisite: English Composition I 10801136 with a grade of "C" or better or Written Communication 10801195 with a grade of "C" or better. Proficiency in word processing skills recommended.*



# emt-paramedic

## Technical Diploma Program Code: 31-531-1 Total Credits: 38

Mid-State's EMT-Paramedic program provides the knowledge and skills needed to work competently as an entry-level EMT-paramedic. Students enter a joint core course cohort with Paramedic Technician degree students. Graduates earn a technical diploma upon successful completion of this program. This program consists of classroom lectures, practical skills lab, laboratory simulations, and hospital and pre-hospital clinical experiences. Upon successful completion, you will earn certifications in Advanced Cardiac Life Support, Prehospital Trauma Life Support, and Pediatric Advanced Life Support and be eligible to take the National Registry of Emergency Medical Technician written and practical examinations.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

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Where: \_\_\_\_\_  
When: \_\_\_\_\_  
With: \_\_\_\_\_
- Official Transcripts  
Mid-State Technical College  
Student Services Assistant  
1001 Centerpoint Drive  
Stevens Point, WI 54481
- Criminal Background Statement of Understanding and Release of Information Form
- Other: \_\_\_\_\_  
\_\_\_\_\_

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Stevens Point, WI 54481

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

## BACHELOR'S DEGREE OPTIONS

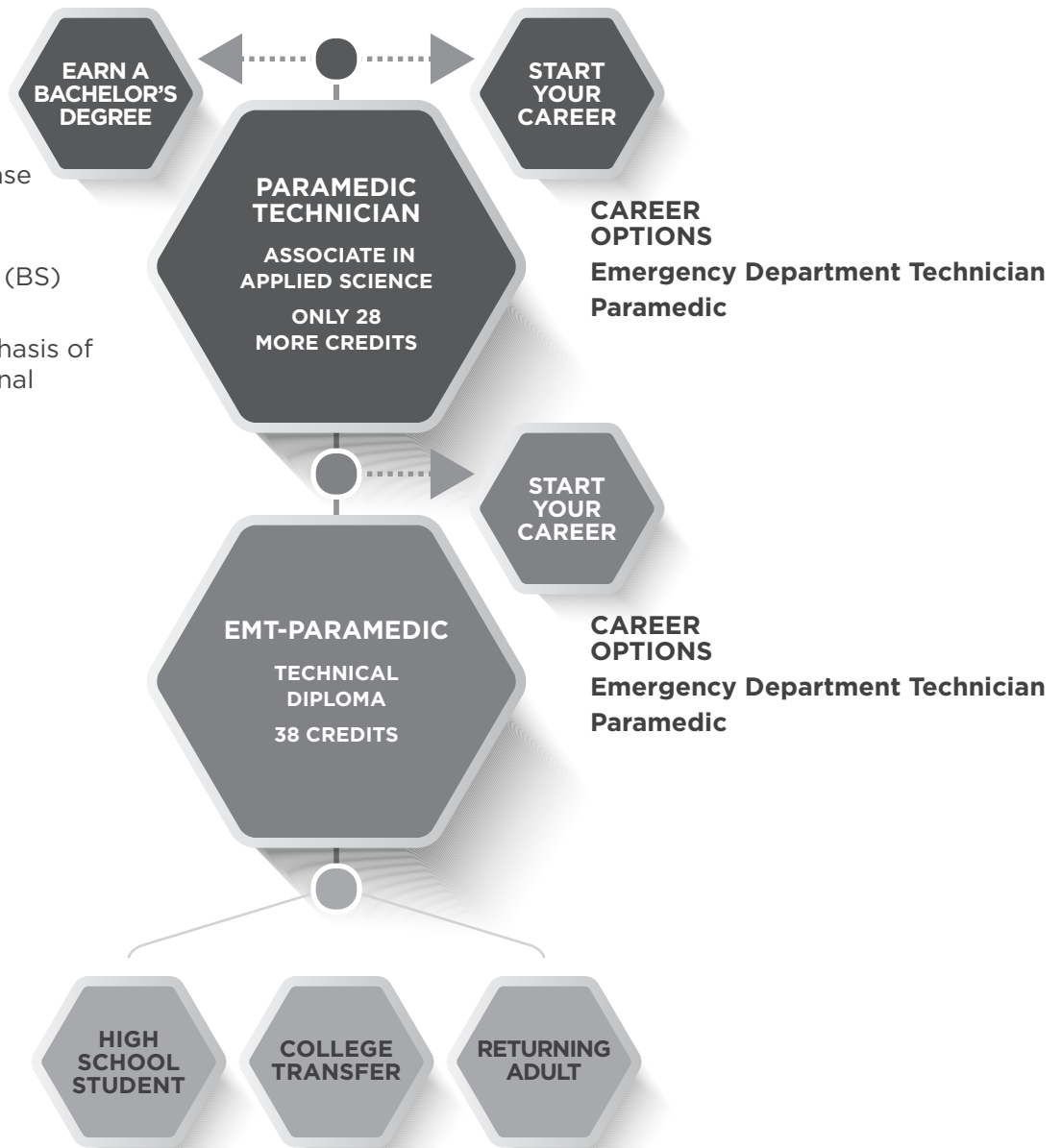
UW-Oshkosh,  
Fire and Emergency Response  
Management (BAS)

UW-Oshkosh,  
Human Services Leadership (BS)

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

UW-Stevens Point,  
Health Science-Health Care  
Administration Option (BS)

**For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**College Credit • Dual Credit • Military Experience • Work Experience**  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Corrections & Community Advocacy
- Criminal Justice-Law Enforcement 720 Academy
- Criminal Justice-Studies
- Emergency Medical Technician
- Emergency Services Management
- Fire Protection Technician

## PROGRAM OUTCOMES

Employers will expect you, as an EMT-Paramedic graduate, to be able to:

- Prepare for incident response and EMS operations.
- Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
- Demonstrate paramedic skills associated with established standards and procedures for a variety of patient encounters.
- Communicate effectively with others.
- Demonstrate professional behavior.
- Meet state and national competencies listed for paramedic certification(s).

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students will fulfill the TSA requirements when they complete the clinical and field courses.

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The EMT-Paramedic program contains the same core courses (10-531) as the Associate Degree Paramedic Technician program. Completion of the Emergency Medical Technician program is required prior to beginning the Paramedic Technician core courses.

EMT-Paramedic is a 1,150-hour program based upon the US Department of Transportation Administration/Wisconsin Bureau Local Health Support and EMS curriculum.

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## ADDITIONAL ENTRY CRITERIA

To apply to the EMT-Paramedic program, please submit the following documents to Mid-State Admissions:

- Criminal Background Statement of Understanding and Release of Information form.
- A current Wisconsin EMT license.

**Mid-State Technical College • Admissions**  
**500 32nd Street North**  
**Wisconsin Rapids, WI 54494**

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as an EMT-paramedic is available at [mstc.edu/programs/emt-paramedic](http://mstc.edu/programs/emt-paramedic). Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## CLINICAL-RELATED REQUIREMENTS

Prior to placement at a clinical site, students need to pay for a criminal background check through a private vendor. Students will be required to provide documentation of required health work and current healthcare provider CPR certification via a Blackboard assignment. Students are responsible for ensuring all requirements remain current during program enrollment.

Clinical sites have the right to refuse a student's placement based on inadequate health records, pending charges, or conviction records. Students with a criminal history may not be able to complete clinical courses. Mid-State will make two attempts to place a student in an appropriate clinical experience. If Mid-State is unable to place the student after two attempts, the student will be withdrawn from the course and will not be able to advance in the program.

Prior to beginning a clinical experience in a health care agency or ambulance service, students must:

- a. Provide evidence of completion of the required health work.
- b. Hold a current State of Wisconsin EMT license.
- c. Hold a Department of Health Services EMS Training Center Training Permit at the paramedic level.
- d. Provide evidence of current CPR at the health care professional level by a CPR organization specified under s. DHS 110.17(1).
- e. Obtain the required uniform for clinical experiences.
- f. Assume responsibility for clinical assignment(s) regardless of time and location, including transportation and other personal arrangements.

## PROGRAM PROGRESSION

In order to maintain a passing status and progress in the EMT-Paramedic program, students must receive a grade of "C" or better in each of the paramedic core courses.

Failure to obtain a grade of "C" in any core course will prevent a student from progressing onto the next course in the sequence until they have retaken the course and achieved a grade of "C" or better.

This requirement also applies to the last class in the sequence, as a grade of "C" or better is required in all courses in order to retain eligibility to take the National Registry exam.







## Advanced Resuscitation

**10531918..... 1 credit**

By teaching advanced cardiac life support (ACLS) and pediatric advanced life support (PALS) methodologies and protocols, this course prepares the paramedic student to integrate comprehensive knowledge of causes and pathophysiology into the management of shock, respiratory failure, respiratory arrest, cardiac arrest, and peri-arrest states. Emphasizes early intervention to prevent respiratory and/or cardiac arrest if possible.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## EMS Fundamental

**10531911 .....2 credits**

Provides the paramedic student with comprehensive knowledge of EMS systems, safety, well-being, legal issues, and ethical issues, with the intended outcome of improving the health of EMS personnel, patients, and the community. Students obtain fundamental knowledge of public health principles and epidemiology as related to public health emergencies, health promotion, and illness/injury prevention. Introduces students to comprehensive anatomical and medical terminology and abbreviations with the aim of fostering the development of effective written and oral communications with colleagues and other healthcare professionals.

*Prerequisites: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311 and Wisconsin Emergency Medical Technician (or higher) license*

## EMS Operations

**10531922 ..... 1 credit**

Provides paramedic students with the knowledge of operational roles and responsibilities to ensure patient, public, and EMS personnel safety.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## Paramedic Capstone

**10531923 ..... 1 credit**

Provides students with a final opportunity to incorporate their cognitive knowledge and psychomotor skills through labs and scenario-based practice and evaluations prior to taking the National Registry written and practical examinations. Technical skills attainment (TSA) for each student will be compiled and/or documented within this course as required by the DHS-approved paramedic curriculum.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## Paramedic Cardiology 1

**10531955 .....2 credits**

Provides basic knowledge to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment for the patient with cardiovascular disease.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## Paramedic Cardiology 2

**10531956 .....2 credits**

Teaches the paramedic student knowledge and skills to integrate assessment findings with principles of cardiovascular anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a variety of cardiovascular complaints.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## Paramedic Clinical/Field 1

**10531917 .....3 credits**

Enhances student learning through the practice of paramedicine in field and healthcare environment experiences with actual patients under the supervision of instructors or approved preceptors. Students may also have the opportunity to participate informal high-fidelity human patient simulator experiences as a part of this course.

*Prerequisites: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311, Advanced Prehospital Pharmacology 10531914, and a current Wisconsin license at the Emergency Medical Technician (or higher) level*

## Paramedic Field Experience

**10531957 .....3 credits**

Provides the opportunity to enhance learning through the practice of paramedicine in a field environment and through experiences with actual patients under the supervision of instructors or approved preceptors. Students may also have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course.

Successful completion of this course requires the student to meet all clinical and field competency requirements at the paramedic level as defined by WI DHS EMS.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## Paramedic Field Leadership

**10531958 ..... 1 credit**

Provides the opportunity to act as the field team leader in a field environment and through experiences with actual patients under the supervision of instructors or approved preceptors. Successful completion of this course requires the student to meet all team leader competency requirements at the paramedic level as defined by WI DHS EMS and the CoAEMSP.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## Paramedic Medical Emergencies

**10531919 ..... 4 credits**

Teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a medical complaint.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## **Paramedic Medical Principles**

**10531912..... 4 credits**

Addresses the complex depth of anatomy, physiology, and pathophysiology of major human systems while also introducing paramedic students to the topics of shock, immunology, and bleeding.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## **Paramedic Respiratory Management**

**10531915.....2 credits**

Teaches the paramedic student to integrate complex knowledge of anatomy, physiology, and pathophysiology into the assessment to develop and implement a treatment plan with the goal of assuring a patient airway, adequate mechanical ventilation, and respiration for patients of all ages. Also provides specific knowledge pertaining to the respiratory system to ensure the student is prepared to formulate a field impression and implement a comprehensive treatment plan for a patient with a respiratory complaint.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## **Paramedic Trauma**

**10531920.....3 credits**

Teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for an acutely injured patient.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## **Patient Assessment Principles**

**10531913.....3 credits**

Teaches the paramedic student to integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. Uses a structured and organized assessment process that draws on knowledge of anatomy, physiology, pathophysiology, life span development, and changes that occur to the human body with time. Using this process students learn to develop a list of differential diagnoses through clinical reasoning and modify the assessment as necessary to formulate a treatment plan for their patients.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## **Prehospital Pharmacology**

**10531914 .....3 credits**

Provides the paramedic student with the comprehensive knowledge of pharmacology required to formulate and administer a pharmacological treatment plan intended to mitigate emergencies and improve the overall health of the patient.

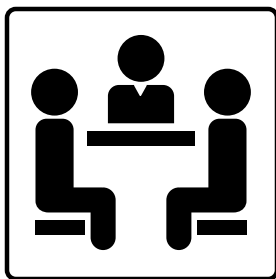
*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## **Special Patient Populations**

**10531921.....3 credits**

Teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for patients with special needs. Also includes gynecological emergencies, along with special considerations in trauma.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*



# entrepreneurship

## Technical Diploma Program Code: 31-145-2 Total Credits: 30

Mid-State's Entrepreneurship program prepares students to provide the vision for their created business as well as lead staff management, financial planning, marketing strategies, HR functions, and the development of policies and procedures. Graduates will also be equipped to integrate their knowledge and skills within existing organizations. Through a wide variety of activities, students will explore vital components of entrepreneurial practices such as business plan development, financial principles, staffing needs and support, modern marketing strategies, and effective communication skills—all to successfully start and sustain their own business.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

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Stevens Point, WI 54481
- Other: \_\_\_\_\_  
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1001 Centerpoint Drive  
Stevens Point, WI 54481

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

# career pathway

## BACHELOR'S DEGREE OPTIONS

Capella University,  
Business Management (BS)

Herzing University,  
Business Management (BS)

Lakeland University,  
Business Administration-  
Management Emphasis (BA)

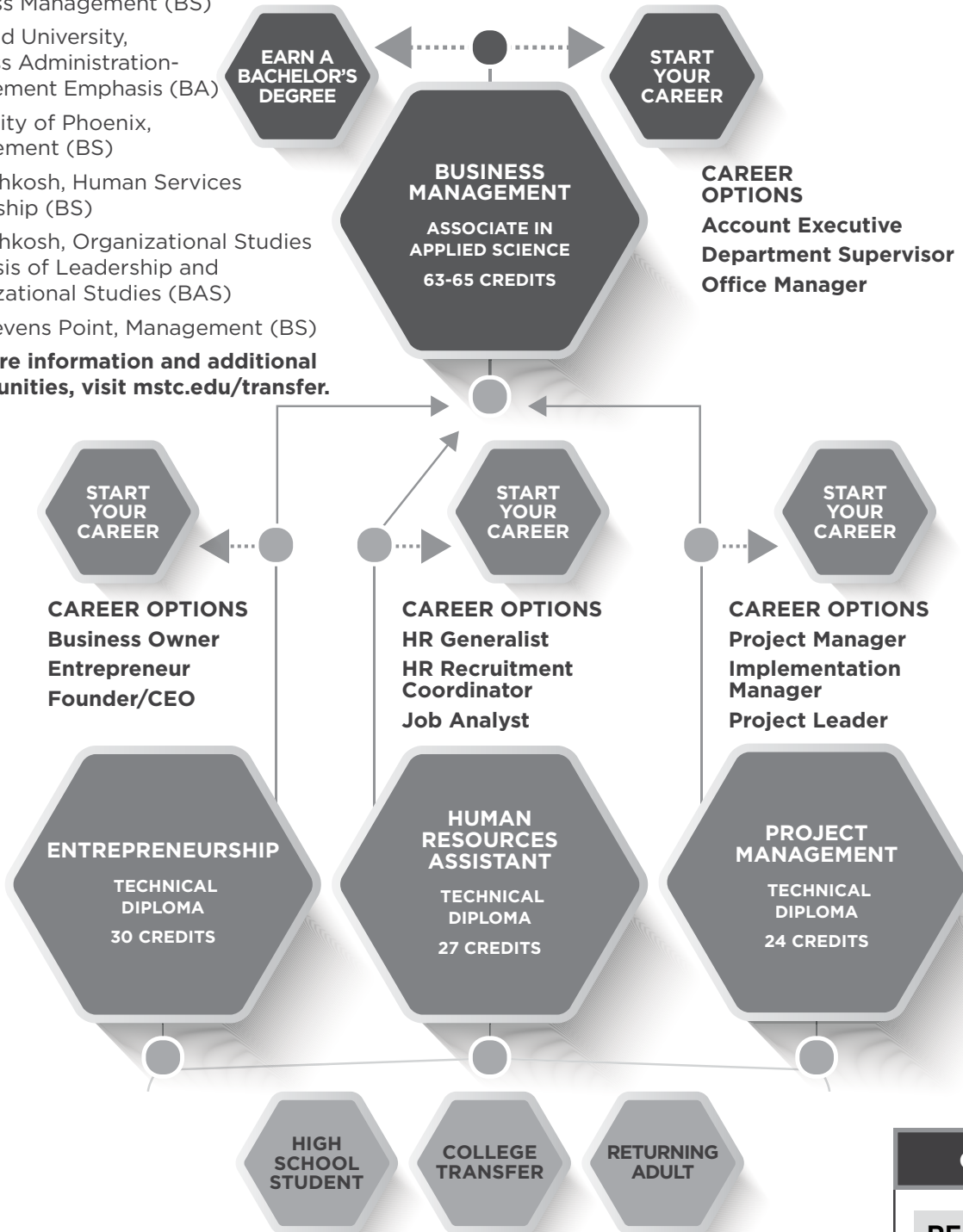
University of Phoenix,  
Management (BS)

UW-Oshkosh, Human Services  
Leadership (BS)

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

UW-Stevens Point, Management (BS)

**For more information and additional  
opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**College Credit • Dual Credit  
Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).**

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IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Administrative Professional
- Customer Relationship Professional
- Leadership Development
- Office Support Specialist





## Business Law

**10102104.....3 credits**

Introduces the basic foundation of laws and regulatory systems applicable to the business environment. Students examine the UCC, contract torts, agency law, and business and cybercrime. Students apply business legal theory in conjunction with ethical decision making through practical application.

## Employment Law

**10102110.....3 credits**

Introduces a broad scope of employment laws and provides the opportunity to apply these laws to the employment arena. Includes laws relating to anti-discrimination, including the Civil Rights Act, ADEA, and ADA; wage and hour regulation, including FLSA; employer-provided pensions, including ERISA; health insurance, including COBRA and ACA; and unemployment and worker's compensation insurance.

## English Composition 1

**10801136 .....3 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.*

## Entrepreneurial Management

**10102131 .....3 credits**

Introduces students to the concept of entrepreneurship. Learners study entrepreneurial practices primarily by developing a business plan for a venture of their choice. This includes comparing ways of going into business as well as developing marketing, legal, financial, products/services, management, and operations plans for a small business of their choice. Entrepreneurial behavior within companies is examined.

*Prerequisite: Twelve Business Management 10-102 credits or twelve Supervisory Management 10-196 credits or a combination of Business Management 10-102 and Supervisory Management 10-196 credits that total twelve.*

## Finance and Budgeting

**10102121 .....3 credits**

For the nonfinancial manager, this course introduces the language of accounting, finance, and budgeting. Provides an overview of the use and analysis of financial statements. Business planning and the foundations and development of budgets are explored. Business financing basics and the securing of necessary financing for a business are covered. Practical application of financial statement creation and analysis, budgetary activities, and finance calculations are included.

## Human Resource Management

**10196193.....3 credits**

Applies skills and tools necessary to perform human resource functions in an organization. Each learner demonstrates skill in following EEOC laws; writing job descriptions; recruiting, selecting, and orienting employees; developing policies and procedures; developing and conducting training; designing performance appraisal plans; developing employee development plans; and selecting compensation and benefit strategies.

## Intro to Business

**10102101.....3 credits**

An introduction to what a business is, how it operates, and how it is managed. Students identify forms of ownership and the processes used in production and marketing, finance, personnel, and management in business operations.

## Marketing Principles

**10104102 .....3 credits**

This course serves as an introduction to the fundamental marketing concepts used to apply marketing strategies to product development, distribution, pricing, and promotion of goods and services.

## Microsoft Office-Introduction

**10103106 .....3 credits**

Develops introductory skills in the Microsoft Office Suite (Word, Excel, Access, PowerPoint, and Outlook) while reinforcing the students' knowledge of computer concepts, Windows Explorer, and web usage. Students should possess basic keyboarding, mouse and Windows 10 skills. Students may develop these skills in the LiNK while concurrently enrolled in this course.

## 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. 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.*





# farm business & production management

## Technical Diploma

**Program Code: 30-090-1**

**Total Credits: 19**

Mid-State's Farm Business & Production Management program teaches the skills needed to be competitive in agriculture and maximize profits. You'll learn how to identify your farm's strengths and weaknesses, analyze farm records to uncover hidden opportunities, apply proven marketing techniques, and more. Classes are offered fall and winter and include instruction in the classroom, on the farm, and via group tours. Topics include crop production, soil management, and financial planning and analysis as well as the feeding, breeding, and management of livestock.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

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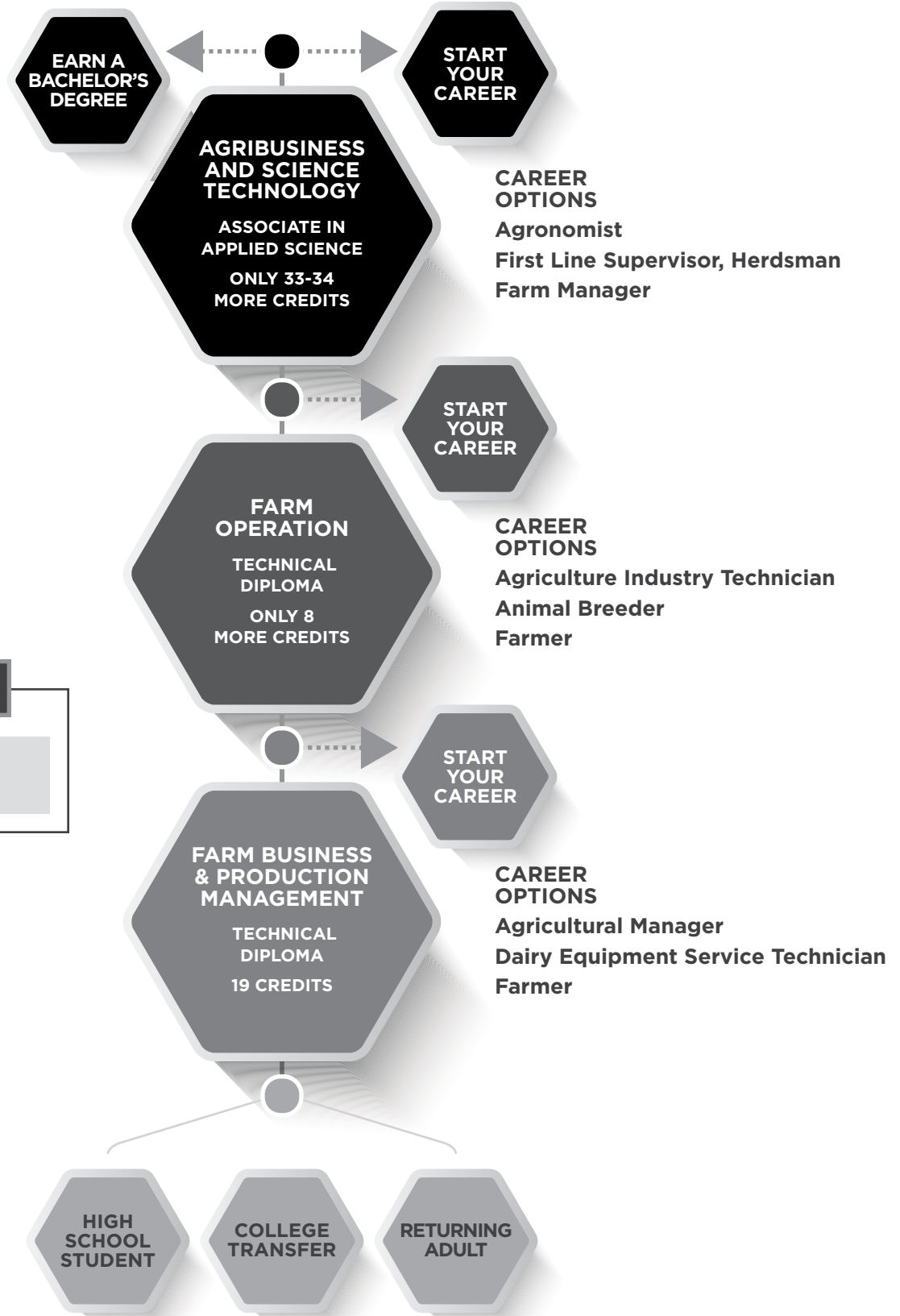
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**WISCONSIN RAPIDS CAMPUS**  
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Wisconsin Rapids, WI 54494

## BACHELOR'S DEGREE OPTIONS

UW-River Falls,  
Agricultural Studies (BS)

For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).



## OTHER OPTIONS

### RELATED PROGRAMS

- Arborist Technician

College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## PROGRAM OUTCOMES

Employers will expect you, as a Farm Business & Production Management graduate, to be able to:

- Utilize agronomic resources for optimal farm production.
- Evaluate livestock management plans.
- Plan for operation and maintenance of facilities and equipment.
- Create a farm business plan.
- Apply marketing principles to agricultural enterprises.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students are notified of TSA reporting in their final few courses of the program.

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Students should be able to operate a calculator and understand basic math skills such as percentage, addition, subtraction, multiplication, and division. Students will be asked to draft budgets and calculate costs and returns on different farming enterprises.

The Farm Business & Production Management program runs from August through July annually. Courses in the program are offered at Mid-State's campuses in Adams, Marshfield, Stevens Point, and Wisconsin Rapids.

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function in farm business and production management is available in the Student Services & Information Center. It is the student's responsibility to notify the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## NOTES:

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## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 .....2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 .....3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 .....3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		19 credits
10080105	Intro to Soil Science	3
10080140	Farm Financial Analysis	3
10090101	Agriculture Business Management	3
10091102	Intro to Animal Science	3
10091103	Animal Nutrition	4
10093104	Principles of Crop Management	3

**Total credits 19**

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10080105	Intro to Soil Science	3
10091102	Intro to Animal Science	3

Term		7 credits
10091103	Animal Nutrition	4
10093104	Principles of Crop Management	3

Term		6 credits
10080140	Farm Financial Analysis	3
10090101	Agriculture Business Management	3

**Total credits 19**

## course descriptions

### Agriculture Business Management

**10090101.....3 credits**

Examines the farm business as a complex set of enterprises that all need to be managed effectively to be successful and sustainable. Students learn to develop a business plan, set short- and long-term goals, identify and implement alternatives for reaching goals. Includes strategies and tools to monitor success. Students also learn to organize and maintain farm business records as well as how to interpret and analyze the records to make sound farm management decisions.

### Animal Nutrition

**10091103.....4 credits**

Students demonstrate how to formulate and balance rations for several species of livestock. Includes knowledge of the nutritional needs of various species and ability to identify different feedstuffs. Students become familiar with the laws and regulations on livestock feeding along with reading, interpreting, and making recommendations from feed test reports/tags. They are also able to successfully understand the digestive systems of mono-gastric and ruminant animals.

*Prerequisite: Intro to Animal Science 10091102 or consent of an instructor*

### Farm Financial Analysis

**10080140.....3 credits**

This course provides the student opportunities to develop necessary business skills for operating a successful farm business. These skills involve analyzing, evaluating, creating and decision-making. These skills will be used with balance sheets, Income & Expense projections, cash flow needs, budget creation, benchmarking, cost of production, inventories, credit needs and history along with loan decisions.

### Intro to Animal Science

**10091102.....3 credits**

Introduces the basics of livestock management. Examines management of dairy, beef, sheep, and other common livestock with concentration on nutrition, feedstuff's classification, reproduction, genetics, animal behavior, animal health, and sustainable agriculture practices. Includes basic husbandry and care procedures for animals. A livestock management plan will be created and analyzed.

### Intro to Soil Science

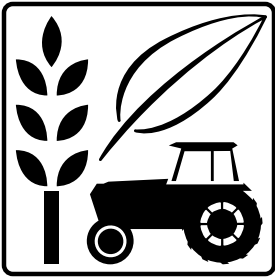
**10080105.....3 credits**

Designed to provide students with fundamental knowledge of soil and soil composition. Includes study of soil types, formation factors, physical properties, biological properties, and basic soil chemistry. Units covering tillage, conservation, pH, soil management, plant nutrients, and fertilizer sources are also included. Students gain the skills required to interpret soil test reports and soil survey maps and recognize qualities of various soil types. Students perform soil sampling, residue measurements, compaction assessments, and soil loss determinations per crop rotation guidelines. A nutrient management plan is created and analyzed.

### Principles of Crop Management

**10093104.....3 credits**

The basic principles and concepts of sound agronomic practices are discussed for corn, soybeans, small grains, and forage crops grown in Wisconsin. All sound agronomy practices are emphasized for each crop area as it relates to cultural and other specific inputs of crop production, environmental factors, and sustainable systems.



# farm operation

## Technical Diploma

**Program Code: 31-080-4**

**Total Credits: 27**

The Farm Operation program at Mid-State prepares graduates to confidently run the day-to-day operations on a farm. You'll learn about livestock and their products, livestock diseases and prevention, quality milk and meat production, soils, crop production, and more. This hands-on program features agribusiness professionals who share their knowledge directly through presentations, demonstrations, and tours. Course topics include best practices for farming, such as how to manage farm records, farm computerization, critical facts about financial credit, creating a business plan, and marketing.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

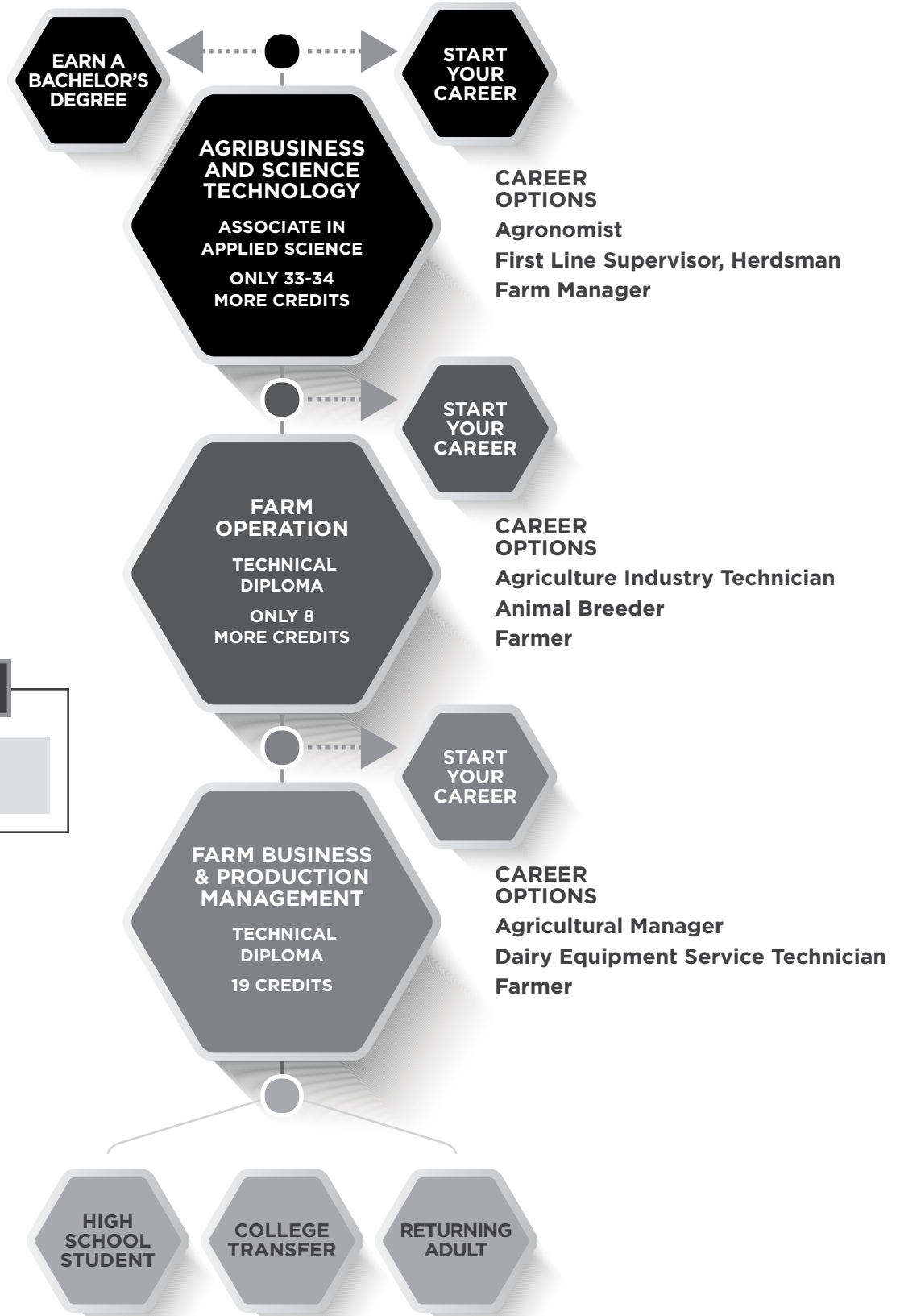
**STEVENS POINT CAMPUS**  
1001 Centerpoint Drive  
Stevens Point, WI 54481

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

**BACHELOR'S DEGREE OPTIONS**

UW-River Falls,  
Agricultural Studies (BS)

For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).



**OTHER OPTIONS**

**RELATED PROGRAMS**

- Arborist Technician

College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## PROGRAM OUTCOMES

Employers will expect you, as a Farm Operation graduate, to be able to:

- Utilize agronomic resources for optimal farm production.
- Evaluate livestock management plans.
- Plan for operation and maintenance of facilities and equipment.
- Create a farm business plan.
- Apply marketing principles to agricultural enterprises.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students are notified of TSA reporting in their final few courses of the program.

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Students should be able to operate a calculator and understand basic math skills, such as percentage, addition, subtraction, multiplication, and division.

Farm Operation is a 30-week program and takes a minimum of two years to complete. The program is offered in two 15-week segments with start dates in September, November, January, and February. Each segment is broken into three five-week terms, running from September to April every school year. Classes are scheduled from 10:00 a.m. - 3:00 p.m., allowing time to complete morning and evening farm work at home.

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function in farm operations is available in the Student Services & Information Center. It is the student's responsibility to notify the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

**10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 ..... 2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 ..... 3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 ..... 3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*





## **Agribusiness Equipment & Facilities**

**10006102.....2 credits**

Examines arrangement and design of efficient farm buildings and equipment as well as construction requirements. Farmstead planning includes mapping of present facilities as well as evaluating usefulness and planning long and short-range goals for farmstead changes to improve economics, safety, efficiency and aesthetics. Environmental factors and animal wellness needs are identified, including space, ventilation, nutrition, and care. Also examines the appropriate use and care of feed, fertilizer, planting and harvesting equipment, and dairy and livestock equipment and facilities. Possible equipment/facility changes are discussed and business expansion is analyzed.

## **Agricultural Computations**

**10006101.....3 credits**

Deals with the application of quantitative tools to support agribusiness management decisions. These management decisions are executed using spreadsheet and data analysis (e.g., Microsoft Excel) while using elementary mathematical tools in an agricultural economics context. This course is designed to prepare students for upper-level agribusiness courses as well as real-world situations in agriculture.

## **Agricultural Diesel Engine Systems**

**10003101.....3 credits**

Students learn the different uses of diesel engines in an agricultural setting. This course also provides an introduction to fuel systems, exhaust systems, and electrical systems. Use of technical service resources and precision measuring is stressed.

## **Agriculture Business Management**

**10090101.....3 credits**

Examines the farm business as a complex set of enterprises that all need to be managed effectively to be successful and sustainable. Students learn to develop a business plan, set short- and long-term goals, identify and implement alternatives for reaching goals. Includes strategies and tools to monitor success. Students also learn to organize and maintain farm business records as well as how to interpret and analyze the records to make sound farm management decisions.

## **Animal Nutrition**

**10091103..... 4 credits**

Students demonstrate how to formulate and balance rations for several species of livestock. Includes knowledge of the nutritional needs of various species and ability to identify different feedstuffs. Students become familiar with the laws and regulations on livestock feeding along with reading, interpreting, and making recommendations from feed test reports/tags. They are also able to successfully understand the digestive systems of mono-gastric and ruminant animals.

*Prerequisite: Intro to Animal Science 10091102 or consent of an instructor*

## **Intro to Animal Science**

**10091102.....3 credits**

Introduces the basics of livestock management. Examines management of dairy, beef, sheep, and other common livestock with concentration on nutrition, feedstuff's classification, reproduction, genetics, animal behavior, animal health, and sustainable agriculture practices. Includes basic husbandry and care procedures for animals. A livestock management plan will be created and analyzed.

## **Intro to Precision Agriculture**

**10093102.....3 credits**

Explores agricultural applications of GPS, yield monitoring systems, and mapping. Students learn to interpret maps generated by precision agriculture equipment. Learners experience setup, calibration and operation of equipment/software designed to support the production crop industry.

## **Intro to Soil Science**

**10080105.....3 credits**

Designed to provide students with fundamental knowledge of soil and soil composition. Includes study of soil types, formation factors, physical properties, biological properties, and basic soil chemistry. Units covering tillage, conservation, pH, soil management, plant nutrients, and fertilizer sources are also included. Students gain the skills required to interpret soil test reports and soil survey maps and recognize qualities of various soil types. Students perform soil sampling, residue measurements, compaction assessments, and soil loss determinations per crop rotation guidelines. A nutrient management plan is created and analyzed.

## **Principles of Crop Management**

**10093104.....3 credits**

The basic principles and concepts of sound agronomic practices are discussed for corn, soybeans, small grains, and forage crops grown in Wisconsin. All sound agronomy practices are emphasized for each crop area as it relates to cultural and other specific inputs of crop production, environmental factors, and sustainable systems.



# fire protection technician

## Associate in Applied Science (AAS) Program Code: 10-503-2 Total Credits: 64

Firefighters are known for taking quick action and performing under pressure, and Mid-State's Fire Protection Technician program prepares students to be successful in this challenging role. Graduates learn the knowledge and techniques needed to save life and property during fires, medical emergencies, and other hazards. This program will expose you to realistic simulations, inside and outside the classroom. You will train on our state-of-the-art burn tower, fire engines, and other high-tech equipment. Developed in partnership with local fire departments, this program ensures you have a competitive edge when starting your career, and local demand for highly skilled firefighters is rising.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://mstc.edu/programcosts)

### ACADEMIC ADVISOR

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- Official Transcripts  
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- Other: \_\_\_\_\_  
\_\_\_\_\_

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**MID-STATE**  
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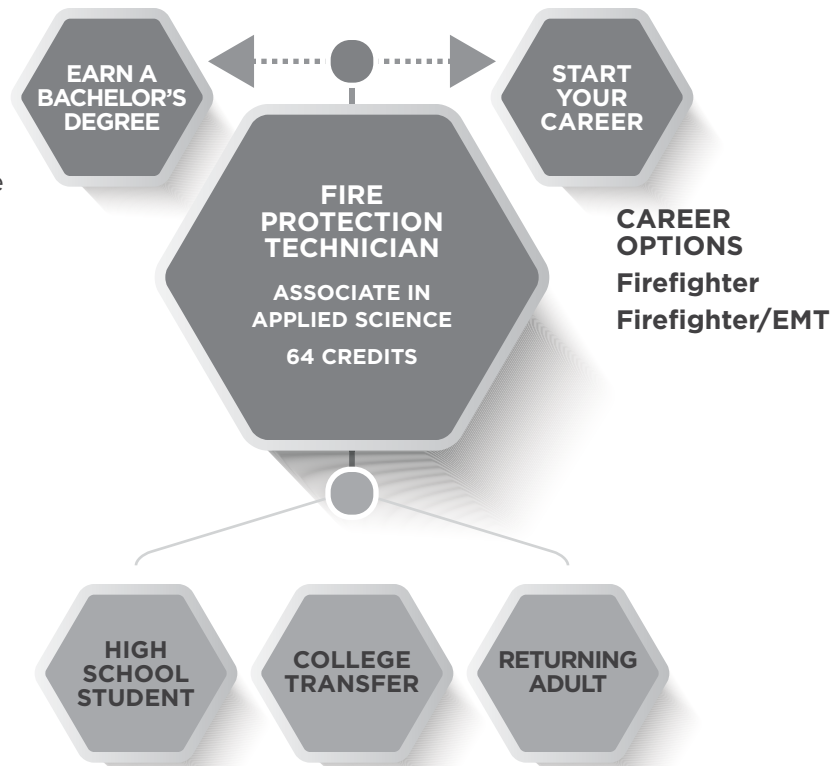
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500 32nd Street North  
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## BACHELOR'S DEGREE OPTIONS

UW-Oshkosh,  
Fire & Emergency Response  
Management (BAS)

For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).



College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Corrections & Community Advocacy
- Criminal Justice-Law Enforcement 720 Academy
- Criminal Justice-Studies
- Emergency Medical Technician
- Emergency Services Management
- EMT-Paramedic
- Paramedic Technician

## PROGRAM OUTCOMES

Employers will expect you, as a Fire Protection Technician graduate, to be able to:

- Demonstrate professional conduct by displaying personal code of ethics, positive work ethic, flexibility, teamwork skills, physical fitness, safe procedures, and sensitivity to diverse cultures and individuals.
- Perform fire prevention activities, including pre-planning, public education, inspection, and investigation.
- Apply incident management skills to emergency incidents.
- Meet professional fire and EMS credentialing standards.
- Communicate clearly and effectively both verbally and through written documentation with clients, coworkers, other agencies, and supervisors.
- Apply critical thinking skills to both emergency and non-emergency situations.

## PROGRAM PROGRESSION

Students must receive a grade of “C” or better in each of the technical and general education courses in order to qualify for graduation.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students are notified of TSA reporting in their final few courses of the program.

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as a fire protection technician is available at [mstc.edu/programs/fire-protection-technician](http://mstc.edu/programs/fire-protection-technician). Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## STUDENT HANDBOOK

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## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

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## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 ..... 2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 ..... 3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 ..... 3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of “S.” (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		17 credits
10503143	Building Construction for Fire Protection	3
10503191	Principles of Emergency Services	2
10503192	Principles of Emergency Services Safety and Survival	3
10531940	EMT Foundations	3
10801136	English Composition 1	3
10804107	College Mathematics	3

Term		17 credits
10503142	Firefighting Principles	4
10503153	Hazardous Materials Awareness & Operations	1
10503195	Fire Behavior & Combustion	3
10531941	EMT Applications	2
10806134	General Chemistry	4
10809198	Intro to Psychology	3

Term		15 credits
10503104	Hazardous Materials Technician	3
10503107	Firefighter Capstone	2
10503112	Advanced Firefighting Practices	3
10503151	Fire Prevention	4
10809166	Intro to Ethics: Theory & Application	3

Term		15 credits
10503101	Technical Rescue Principles	4
10503108	Firefighter Health and Fitness	2
10503111	Driver/Operator - Pumper	3
10503193	Fire Protection Systems	3
10801197	Technical Reporting	3

**Total credits 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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		8 credits
10531940	EMT Foundations	3
10503191	Principles of Emergency Services	2
10801136	English Composition 1	3

Term		9 credits
10531941	EMT Applications	2
10804107	College Mathematics	3
10806134	General Chemistry	4

Term		6 credits
10503143	Building Construction for Fire Protection	3
10503192	Principles of Emergency Services Safety and Survival	3

Term		8 credits
10809198	Intro to Psychology	3
10503142	Firefighting Principles	4
10503153	Hazardous Materials Awareness & Operations	1

Term		9 credits
10503104	Hazardous Materials Technician	3
10503112	Advanced Firefighting Practices	3
10809166	Intro to Ethics: Theory & Application	3

Term		9 credits
10503101	Technical Rescue Principles	4
10503107	Firefighter Capstone	2
10503195	Fire Behavior & Combustion	3

Term		9 credits
10503108	Firefighter Health and Fitness	2
10503151	Fire Prevention	4
10801197	Technical Reporting	3

Term		6 credits
10503111	Driver/Operator - Pumper	3
	Fire Protection Systems	3

**Total credits 64**

# course descriptions

## Advanced Firefighting Practices

**10503112 .....3 credits**

Explores advanced firefighting skills, focusing on communications, investigations, and other advanced firefighting techniques. Fulfills the job performance requirements for Wisconsin Firefighter 2 certification eligibility.  
*Prerequisite: Firefighting Principles 10503142*

## Building Construction for Fire Protection

**10503143.....3 credits**

Provides the components of building construction related to firefighter and life safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, pre-planning fire operations, and operating at emergencies.

*Prerequisite: Admission to Fire Protection Technician program 105032 or Emergency Services Management program 105035*

## College Mathematics

**10804107 .....3 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.*

## Driver/Operator - Pumper

**10503111 .....3 credits**

Provides instruction and opportunity to understand and put into practice basic defensive driving techniques. This course meets the requirements of NFPA 1002, Standard for Fire Apparatus Driver/Operator Professional Qualifications, Driver/Operator - Pumper Job Performance Requirements (JPRs).

*Prerequisite: Firefighting Principles 10503142*

## EMT Applications

**10531941.....2 credits**

Course covers the bulk of the Emergency Medical Technician certification course to include the handling of cervical and spine injuries, burn injuries, heart- and breathing-related problems, shock, and other trauma injuries. Includes several lab days to practice and perfect skills, clinical time, and extensive hands-on activities. Prepares students for national certification testing for EMT. To maintain National Registry certification eligibility this course must be finished the semester following the completion of EMT Foundations.

*Prerequisite: EMT Foundations 10531940*

## EMT Foundations

**10531940 .....3 credits**

Covers the basics of the Emergency Medical Technician certification course to include CPR, airways, anatomy, hazmat response requirements, lifting and moving patients, incident command, and other technical information. It is the first part of a two-course system to prepare students for national certification testing for EMT.

*Prerequisite: Admission to Paramedic Technician program 105311 OR Emergency Medical Technician program 305313 OR Fire Protection Technician program 105032*

## English Composition 1

**10801136 .....3 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.*

## Fire Behavior & Combustion

**10503195.....3 credits**

Explores the theories and fundamentals of how and why fires start, spread, and are controlled.

*Prerequisite: Building Construction for Fire Protection 10503143 or Intro to Emergency Services 10503102*

## Fire Prevention

**10503151 ..... 4 credits**

Provides fundamental knowledge relating to the field of fire prevention. Topics include history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use and application of codes and standards, plans review, fire inspections, fire and life safety education, and fire investigation.

*Prerequisite: Firefighting Principles 10503142*

## Fire Protection Systems

**10503193.....3 credits**

Provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection, and portable fire extinguishers.

*Prerequisite: Firefighting Principles 10503142*

## Firefighter Capstone

**10503107.....2 credits**

Prepares the learner for a career in the fire service through an applied research project or an internship. Learners will apply for an internship if they are interested; however, final determination for acceptance into an internship is dependent on department acceptance of the learner. If an internship is not desired or not made available the learner will work with faculty to develop an applied research project.

*Prerequisites: Firefighting Principles 10503142 and Hazardous Materials Awareness & Operations 10503153*

## Firefighter Health and Fitness

**10503108 .....2 credits**

Prepares the learner for the physical requirements that are necessary for success as a firefighter. Focuses on preparation for the Firefighter Candidate Physical Ability Test (CPAT). Learners will also explore the concepts of wellness in areas such as diet, stress management, and perspective.

## Firefighting Principles

**10503142..... 4 credits**

Describes basic fire behavior, techniques used to control structural and related fire emergencies, and life safety practices. Students perform all practical evolutions necessary to control and extinguish fires and otherwise meet all requirements for Firefighter I certification in the State of Wisconsin.

*Prerequisite: Admission to Fire Protection Technician program 105032*

## General Chemistry

**10806134 ..... 4 credits**

Covers the fundamentals of chemistry. Topics include the metric system; problem solving; periodic relationships; chemical reactions, chemical equilibrium; properties of water; acids, bases, and salts; and gas laws. High School GPA of 3.0 or Accuplacer QAS of 246 or ACT of 19, and College Mathematics 10804107 with a "C" or better, or Intermediate Algebra with Applications 10804118 with a "C" or better. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.

## Hazardous Materials Awareness & Operations

**10503153..... 1 credit**

Examines characteristics relating to hazardous materials, including problems of recognition and mitigation. Prepares students to advance toward the Hazardous Materials Technician Level.

*Corequisite: Firefighting Principles 10503142*

## Hazardous Materials Technician

**10503104 .....3 credits**

Prepares learners to operate on a hazardous materials response team. Provides the essential knowledge, skills, and abilities to operate offensively or defensively at an incident involving the release of hazardous materials.

Prepares learners to identify known and unknown material by using field survey instruments and equipment; to select and use the proper chemical protective equipment; to understand hazard and risk assessment techniques for hazmat environments; to be able to perform advanced control, containment, and/or confinement operations using resources and personal protective equipment available; and to develop action plans.

*Prerequisite: Hazardous Materials Awareness & Operations 10503153*

## Intro to Ethics: Theory & Application

**10809166 .....3 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 Psychology

**10809198 .....3 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.*

## Principles of Emergency Services

**10503191 .....2 credits**

Introduces the student to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasizes fire and emergency service, ethics, and leadership from the perspective of the company officer.

*Prerequisite: Admission to Fire Protection Technician program 105032*

## Principles of Emergency Services Safety and Survival

**10503192.....3 credits**

Introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.

*Prerequisite: Admission to Fire Protection Technician program 105032*

## Technical Reporting

**10801197 .....3 credits**

The student prepares and presents oral and written technical reports. Types of reports may include lab and field reports, proposals, technical letters and memos, technical research reports, and case studies. Designed as an advanced communication course for students who have completed at least the prerequisite introductory writing course.

*Prerequisite: English Composition I 10801136 with a grade of "C" or better or Written Communication 10801195 with a grade of "C" or better. Proficiency in word processing skills recommended.*

## Technical Rescue Principles

**10503101 ..... 4 credits**

Exposes students to labor-intensive requirements in team-based technical rescue. Students are trained in auto extrication and technician-level rope rescue and confined space rescue.

*Prerequisite: Firefighting Principles 10503142*



# health & wellness promotion

## Associate in Applied Science (AAS) Program Code: 10-546-2 Total Credits: 60-61

Mid-State's Health & Wellness Promotion graduates possess a strong foundation in health and wellness concepts across the lifespan. They have the knowledge and skills needed to develop and implement health and wellness promotion activities that seek to maximize quality of life and reduce or prevent illness and injury. The program will prepare you to support individuals, organizations, and communities with health and wellness initiatives. You will also learn to design, develop, and promote wellness programs and initiatives through a variety of educational campaigns, promotion concepts, and modification interventions. Mid-State is the only college in the Wisconsin Technical College System to offer this online program.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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
- Criminal Background Statement of Understanding and Release of Information Form
- 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

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

UW-Stevens Point,  
Family and Consumer Science (BS)

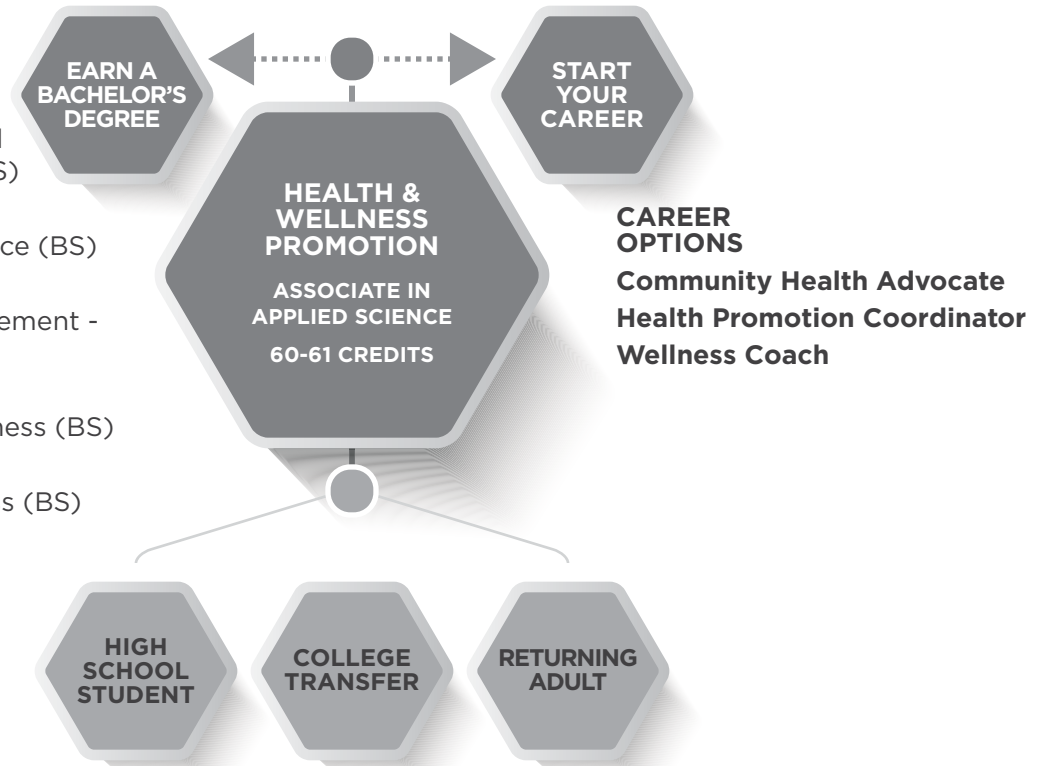
UW-Stevens Point,  
Health and Wellness Management -  
Online (BS)

UW-Stevens Point,  
Health Promotion and Wellness (BS)

UW-Stout,  
Health, Wellness, and Fitness (BS)

UW-Stout,  
Human Development  
and Family Studies (BS)

**For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**College Credit • Dual Credit • Military Experience • Work Experience**  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Central Service Technician
- Health Information Management
- Medical Assistant
- Medical Coder
- Nursing
- Nursing Assistant
- Pharmacy Services Management
- Pharmacy Technician
- Phlebotomy Technician
- Respiratory Therapy
- Surgical Technologist

## PROGRAM OUTCOMES

Employers will expect you, as a Health & Wellness Promotion graduate, to be able to:

- Provide evidence-based health and wellness direction to individuals and organizations.
- Design, develop, and implement health and wellness promotion activities and campaigns.
- Champion behavior modification interventions to promote sustainable health and wellness.
- Support the maintenance of health and wellness promotion for individuals and organizations.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students are notified of TSA reporting in their final few courses of the program.

## ADDITIONAL ENTRY CRITERIA

To apply to the Health & Wellness Promotion program, please submit the following documents to Mid-State Admissions:

- Criminal Background Statement of Understanding and Release of Information form.

**Mid-State Technical College • Admissions**  
**500 32nd Street North**  
**Wisconsin Rapids, WI 54494**

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as a Health and Wellness Promotion graduate is available at [mstc.edu/programs/health-wellness-promotion](http://mstc.edu/programs/health-wellness-promotion). Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## PRACTICUM-RELATED REQUIREMENTS

Prior to placement at a practicum site, students need to pay for a criminal background check and provide documentation of required health work.

Students are responsible for ensuring all requirements remain current during program enrollment.

Practicum sites have the right to refuse a student's placement based on inadequate health records, pending charges, or conviction records. Students with a criminal history may not be able to complete practicum courses. Mid-State will make two attempts to place a student in an appropriate practicum experience. If Mid-State is unable to place the student after two attempts, the student will be withdrawn from the practicum course and will not be able to advance in the program.

## PROGRAM PROGRESSION AND COMPLETION

In order to maintain a passing status and progress in the program, students must:

- Repeat courses not completed with a "C" or better prior to progressing in core courses or other courses with co- or prerequisites.
- Receive a grade of "C" or better in all courses required for graduation.

Please note that the ability to repeat courses is dependent upon availability of courses. Students may be required to apply for program re-entry in order to repeat courses within the program's instructional area.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

## GPS for Student Success

### **10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### **Intro to College Reading**

#### **10838104 ..... 2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### **Intro to College Writing**

#### **10831103 ..... 3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

## Pre-Algebra

### 10834109 .....3 credits

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

### SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
10544103	Healthy Aging	3
10546100	Essential Concepts for Health and Wellness	3
10801136	English Composition 1	3
10809196	Intro to Sociology	3
10809198	Intro to Psychology	3

Term		15-16 credits
10546101	Nutrition for Healthy Living	3
10546102	Behavior Change for Wellness	3
10546108	Group Fitness Instruction	3
10801196	Oral/Interpersonal Communication -or-	
10801198	Speech	3
10806177	General Anatomy & Physiology	4
	-or-	
10806189	Basic Anatomy	3

Term		15 credits
10102101	Intro to Business	3
10546103	Principles of Physical Conditioning	3
10546104	Population Health & Wellness	3
10546109	Youth Wellness	3
10546110	Mental Wellness and Stress Management	3

Term		15 credits
10103123	Excel-Beginning	1
10546107	Health Coaching for the Wellness Professional	3
10546105	Program Development, Implementation, & Evaluation	3
10546106	Health & Wellness Practicum	2
10546111	Wellness Marketing and Entrepreneurship	3
10809166	Intro to Ethics: Theory and Application -or-	
10809172	Introduction to Diversity Studies	3

**Total credits 60-61**

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](http://mstc.edu/classfinder).

### SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10546100	Essential Concepts for Health and Wellness	3
10801136	English Composition 1	3

Term		6 credits
10809166	Intro to Ethics: Theory and Application -or-	
10809172	Introduction to Diversity Studies	3
10809198	Intro to Psychology	3

Term		9 credits
10546101	Nutrition for Healthy Living	3
10801196	Oral/Interpersonal Communication -or-	
10801198	Speech	3
10809196	Intro to Sociology	3

Term		7-8 credits
10103123	Excel-Beginning	1
10806177	General Anatomy & Physiology	4
	-or-	
10806189	Basic Anatomy	3
10544103	Healthy Aging	3

Term		9 credits
10102101	Intro to Business	3
10546103	Principles of Physical Conditioning	3
10546108	Group Fitness Instruction	3

Term		6 credits
10546102	Behavior Change for Wellness	3
10546111	Wellness Marketing and Entrepreneurship	3

Term		9 credits
10546109	Youth Wellness	3
10546110	Mental Wellness and Stress Management	3
10546104	Population Health & Wellness	3

Term		8 credits
10546107	Health Coaching for the Wellness Professional	3
10546105	Program Development, Implementation, & Evaluation	3
10546106	Health & Wellness Practicum	2

**Total credits 60-61**

## Basic Anatomy

**10806189 .....3 credits**

Examines concepts of anatomy and physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems.

## Behavior Change for Wellness

**10546102 .....3 credits**

Examines the importance of understanding the theory of behavior change to assist others in overcoming barriers so they may achieve sustainable behavior change. Refines a beginning skill set including how to advise individuals on goal setting, strategy planning, and encouraging maintenance of health and wellness goals.

*Corequisite: Essential Concepts for Health and Wellness 10546100*

## English Composition 1

**10801136 .....3 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.*

## Essential Concepts for Health and Wellness

**10546100 .....3 credits**

This class introduces the student to basic health and wellness promotion principles at the individual level including the six dimensions of wellness, determinants of health and behavior change theory. Students explore a holistic view of health and wellness concepts covering healthy lifestyle choices, managing stress, individual wellness perspective and how economics can positively and negatively impact the health and wellness of an individual.

## Excel Beginning

**10103123 .....1 credit**

Students learn to create, modify, and format spreadsheets, charts, and graphics. Students also learn to perform calculations and analysis on data.

## General Anatomy & Physiology

**10806177 .....4 credits**

Examines basic concepts of human anatomy and physiology as they relate to health sciences. Using a body systems approach, the course emphasizes the interrelationships between structure and function at the gross and microscopic levels of organization of the entire human body. It is intended to prepare health care professionals who need to apply basic concepts of whole body anatomy and physiology to informed decision making and professional communication with colleagues and patients.

*Prerequisite: High School GPA of 3.0 or Accuplacer Reading Skills of 236 or ACT of 15, or General Chemistry 10806134 with a grade of "C" or better, or General Biology 10806114 with a grade of "C" or better, or Human Body in Health & Disease 10509102 with a "C" or better. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.*

## Group Fitness Instruction

**10546108 .....3 credits**

Provides theoretical knowledge and practical skills in preparation for a national certification exam in group fitness instruction. Topics include guidelines for instructing safe, effective, and purposeful exercise, essentials of the instructor-participant relationship, principles of motivation to encourage adherence in the group fitness setting, effective instructor-to-participant communication techniques, methods for enhancing group leadership, and the group fitness instructor's (GFI's) professional role.

## Health & Wellness Practicum

**10546106 .....2 credits**

Provides practical experience and the opportunity to apply concepts from previous coursework to help students transition to the role of community health promoter. The practicum location is chosen in collaboration with faculty based on student interest and site availability. Students work closely with an approved preceptor and faculty to accomplish individualized learning goals.

*Prerequisites: Essential Concepts for Health & Wellness 10546100, Behavior Change for Wellness 10546102, Principles of Physical Conditioning 10546103, and Nutrition for Healthy Living 10546101; Corequisites: Population Health & Wellness 10546104 and Program Development, Implementation & Evaluation 10546105*

## Health Coaching for the Wellness Professional

**10546107 .....3 credits**

Builds on the Behavior Change for Wellness class to introduce and practice techniques for lifestyle health coaching. Analyzes the relationships between exercise, nutrition, and weight control and how to effectively and sustainably promote lifelong positive behavior change in individual clients.

*Prerequisites: Behavior Change for Wellness 10546102 and Principles of Physical Conditioning 10546103*

## Healthy Aging

**10544103 .....3 credits**

Provides an overview of practices to promote healthy aging. Addresses nutrition, physical activity, and prevention practices as well as medications commonly prescribed for the older adult. Emphasis is on practices to address current aging trends.

## Intro to Business

**10102101.....3 credits**

An introduction to what a business is, how it operates, and how it is managed. Students identify forms of ownership and the processes used in production and marketing, finance, personnel, and management in business operations.

## Intro to Ethics: Theory & Application

**10809166 .....3 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 Psychology

**10809198 .....3 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.*

## Intro to Sociology

**10809196 .....3 credits**

Introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions of family, politics, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, and social organization.

*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.*

## Introduction to Diversity Studies

**10809172.....3 credits**

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored.

*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.*

## Mental Wellness and Stress Management

**10546110 .....3 credits**

Investigate the underpinnings of mental health and wellness. Explore the risks of stress and emotional management techniques to mitigate these risks by embracing a growth mindset. The learner will be engaged in processes to support the emotional dimension of health and demonstrate ways to implement these practices for oneself and others along their wellness journey.

## Nutrition for Healthy Living

**10546101 .....3 credits**

Students learn concepts of healthy eating to facilitate the journey of good health across the lifespan. Healthy eating concepts focus on individual decision making and behavior change with sustainable interventions rooted in evidenced-based practice. Students investigate nutrition myth versus fact and explore how policy and environment impact nutritional choice.

*Corequisite: Essential Concepts of Health and Wellness 10546100*

## 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 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.*

## Population Health & Wellness

**10546104 .....3 credits**

Examines the components and attributes of population health, including economic and policy implications for population-based health promotion activities. Students take a closer look at measures including interventions and programming that support the health of the community.

*Corequisite: Essential Concepts of Health and Wellness 10546100*

## Principles of Physical Conditioning

**10546103 .....3 credits**

Emphasizes quality of life improvement and encouraging others to maximize health and wellness potential through physical conditioning. Explores the effects of physical exercise on body systems and functioning, including specific exercises for balance, endurance, strength, and weight loss. Special populations and considerations are highlighted throughout the course.

*Corequisite: Basic Anatomy 108061890*

## Program Development, Implementation, & Evaluation

## **10546105 .....3 credits**

Students acquire the skill set to develop, implement, and evaluate a health and wellness promotion project at the individual or community level. Explores components of health and wellness promotion program building, including the needs assessment, marketing principles, role of leadership, continuous quality improvement, economics, and collaborations to ensure success.

*Prerequisites: Essential Concepts for Health & Wellness 10546100, Behavior Change for Wellness 10546102, Principles of Physical Conditioning 10546103, and Nutrition for Healthy Living 10546101; Corequisite: Population Health & Wellness 10546104*

## **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. 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.*

## **Wellness Marketing and Entrepreneurship**

### **10546111 .....3 credits**

Explore ways to support entrepreneurship strategies in the wellness market. Learners will investigate way to market themselves as emerging wellness professionals, find their niche market and use social media to attract clients all while exploring the basics of wellness business building. The learner will create a digital platform and a business plan geared toward their unique future wellness professional interests.

## **Youth Wellness**

### **10546109 .....3 credits**

Explore the developmental science which shapes youth wellness as seen through the lens of each of the wellness dimensions. Examining different socioeconomic implications and childhood events will support evidence based resiliency interventions. An exploration of youth community programming and application exercises will support the learner's transition to the health and wellness professional role.



# health information management

## Associate in Applied Science (AAS) Program Code: 10-530-4 Total Credits: 67-68

Mid-State's Health Information Management program prepares individuals to enter the emerging field of electronic health record management. Students learn to use computer programs and established methods to securely process, compile, maintain, and report electronic health information data for patient care. In this program you'll learn to abstract and code clinical data using classifications systems as well as analyze health records according to industry protocols. You'll build knowledge about reimbursement, facility planning, marketing, risk management, and more. Graduates are eligible to take the AHIMA national certification exam for Registered Health Information Technician (RHIT).

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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
- Criminal Background Statement of  
Understanding and Release of  
Information Form
- Other: \_\_\_\_\_  
\_\_\_\_\_

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**MID-STATE**  
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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

UW-Green Bay,  
Health Information Management & Technology - (Online BS)

UW-LaCrosse,  
Health Information Management & Technology - (Online BS)

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

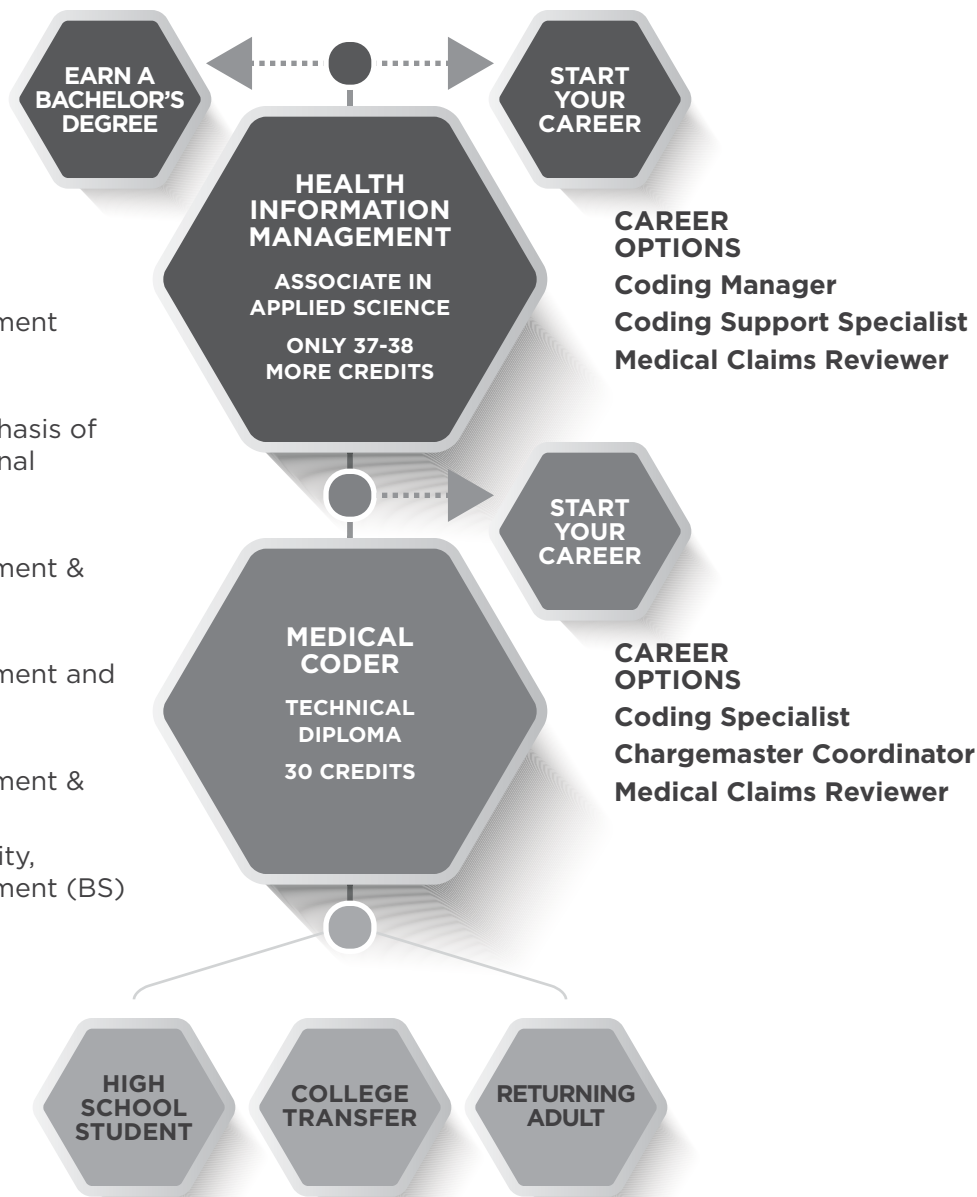
UW-Parkside,  
Health Information Management & Technology - (Online BS)

UW-Stevens Point,  
Health Information Management and Technology Degree (BS)

UW-Stevens Point,  
Health Information Management & Technology - (Online BS)

Western Governor's University,  
Health Information Management (BS)

**For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).**



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## OTHER OPTIONS

### RELATED PROGRAMS

- Central Service Technician
- Health & Wellness Promotion
- Medical Assistant
- Nursing
- Nursing Assistant
- Pharmacy Services Management
- Pharmacy Technician
- Phlebotomy Technician
- Respiratory Therapy
- Surgical Technologist

**BEGIN AT ANY POINT  
IN THE PATHWAY**



## PROGRAM OUTCOMES

Employers will expect you, as a Health Information Management graduate, to be able to:

- Demonstrate professional behaviors and ethics.
- Apply information technology and analytics in data use.
- Apply coding and reimbursement systems.
- Supervise various components of the health information system.
- Apply data governance principles to ensure the quality of health data.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students are notified of TSA reporting in their final few courses of the program and will complete a mock RHIT exam to fulfill the TSA requirement for this program.

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The Health Information Management accreditor of Mid-State Technical College is the Commission on Accreditation for Health Informatics and Information Management (CAHIIM). The College's accreditation for associate degree in Health Information Management at the Marshfield campus has been reaffirmed through 2023.

Graduates are eligible to take the national certification exam offered by the American Health Information Management Association (AHIMA) for the Registered Health Information Technician (RHIT) credential.



## ADDITIONAL ENTRY CRITERIA

To apply to the Health Information Management program, please submit the following documents to Mid-State Admissions:

- Criminal Background Statement of Understanding and Release of Information form.

**Mid-State Technical College • Admissions**  
**500 32nd Street North**  
**Wisconsin Rapids, WI 54494**

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as a Health Information Management graduate is available at [mstc.edu/programs/health-information-management](http://mstc.edu/programs/health-information-management). Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## CLINICAL-RELATED REQUIREMENTS

Prior to placement at a clinical site, students need to pay for a criminal background check through a private vendor and provide documentation of required health work.

Students are responsible for ensuring all requirements remain current during program enrollment.

Clinical sites have the right to refuse a student's placement based on inadequate health records, pending charges, or conviction records. Students with a criminal history may not be able to complete clinical courses. Mid-State will make two attempts to place a student in an appropriate clinical experience. If Mid-State is unable to place the student after two attempts, the student will be withdrawn from the clinical course and will not be able to advance in the program.

## PROGRAM PROGRESSION AND COMPLETION

In order to progress in and successfully complete the program, students must:

- Repeat courses not completed with a "C" or better prior to progressing in core courses or other courses with co- or prerequisites.
- Receive a grade of "C" or better in all courses required for graduation.

A student may repeat the same course only once in the Health Information Management program. If the course is failed a second time, the student will be withdrawn from the Health Information Management program. If a Health Information Management student fails four separate program courses, the student will be withdrawn from the program. Failures will include failing the same course or failing different courses. A withdrawal grade of "W" counts as one attempt for the course.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		17-18 credits
10103106	Microsoft Office-Introduction	3
10501101	Medical Terminology	3
10530111	Introduction to Health Records	3
10530125	Organization of Healthcare	2
10801136	English Composition 1	3
10806177	General Anatomy & Physiology	4
	<b>-or-</b>	
10806189	Basic Anatomy	3
Term		17 credits
10530122	Electronic Health Records	3
10530144	CPT Coding	3
10530161	Legal Aspects of HIM	2
10530182	Human Disease for the Health Professions	3
10530197	ICD Diagnosis Coding	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
Term		18 credits
10156101	Database Concepts and Design	3
10530132	Health Data Analysis	3
10530160	Performance Improvement for Health Professions	3
10530166	Inpatient Procedure Coding	3
10804198	Introductory Statistics	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3
Term		15 credits
10530146	Private and Government Reimbursement	3
10530147	HIM Advanced Coding	3
10530163	Health Information Clinical	2
10530164	RHIT Test Prep	1
10530167	Management of Health Information Services	3
10809166	Intro to Ethics: Theory & Application	3
<b>Total credits 67-68</b>		

**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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10501101	Medical Terminology	3
10530111	Introduction to Health Records	3
Term		8-9 credits
10530125	Organization of Healthcare	2
10801136	English Composition 1	3
10806177	General Anatomy & Physiology	4
	<b>-or-</b>	
10806189	Basic Anatomy	3
Term		6 credits
10103106	Microsoft Office-Introduction	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
Term		2 credits
10530161	Legal Aspects of HIM	2
Term		6 credits
10530122	Electronic Health Records	3
10530182	Human Disease for the Health Professions	3
Term		6 credits
10530197	ICD Diagnosis Coding	3
10809166	Intro to Ethics: Theory & Application	3
Term		6 credits
10156101	Database Concepts and Design	3
10530132	Health Data Analysis	3
Term		9 credits
10530144	CPT Coding	3
10804198	Introductory Statistics	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3
Term		6 credits
10530160	Performance Improvement for Health Professions	3
10530166	Inpatient Procedure Coding	3
Term		6 credits
10530167	Management of Health Information Services	3
10530147	HIM Advanced Coding	3
Term		6 credits
10530146	Private and Government Reimbursement	3
10530163	Health Information Clinical	2
10530164	RHIT Test Prep	1
<b>Total credits 67-68</b>		

## Basic Anatomy

**10806189 .....3 credits**

Examines concepts of anatomy and physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems.

## CPT Coding

**10530144 .....3 credits**

Prepares learners to assign current procedural terminology (CPT) codes supported by medical documentation with entry-level proficiency. Students are familiar with and use standard coding references. Emphasizes accuracy, CPT instructional notations, conventions, rules, and official coding guidelines when assigning CPT codes to case studies and actual medical record documentation. Also covers application of modifiers to services and relationship to financial impact.

*Prerequisites: Medical Terminology 10501101, Basic Anatomy 10806189, and Introduction to Health Records 10530111; Corequisite: Human Disease for the Health Professions 10530182*

## Database Concepts and Design

**10156101 .....3 credits**

Introduces the concepts of relational database design, development, and maintenance. Topics include relational normalization, referential integrity, and Structured Query Language (SQL).

*Corequisite: English Composition 1 10801136*

## 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.*

## Electronic Health Records

**10530122 .....3 credits**

Introduces students to the electronic health record (EHR) as a technology-based representation of healthcare data integration from a participating collection of varied systems for a single patient. Course covers emerging use of the electronic health record, an overview of EHR, applications, benefits and barriers to its use, vocabularies, principles of implementation, health information exchange, standards, privacy, security, information retrieval, digital libraries, and image management.

*Prerequisites: Medical Terminology 10501101, Basic Anatomy 10806189, and Introduction to Health Records 10530111; Corequisite: Human Disease for the Health Professions 10530182*

## English Composition 1

**10801136 .....3 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.*

## General Anatomy & Physiology

**10806177 ..... 4 credits**

Examines basic concepts of human anatomy and physiology as they relate to health sciences. Using a body systems approach, the course emphasizes the interrelationships between structure and function at the gross and microscopic levels of organization of the entire human body. It is intended to prepare health care professionals who need to apply basic concepts of whole body anatomy and physiology to informed decision making and professional communication with colleagues and patients.

*Prerequisite: High School GPA of 3.0 or Accuplacer Reading Skills of 236 or ACT of 15, or General Chemistry 10806134 with a grade of "C" or better, or General Biology 10806114 with a grade of "C" or better, or Human Body in Health & Disease 10509102 with a "C" or better. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.*

## Health Data Analysis

**10530132 .....3 credits**

Focuses on the collection, computation, analysis, and presentation of healthcare statistical data. Examines data analytics, registries, vital statistics, mandatory reporting, and research.

*Prerequisites: Introduction to Health Records 10530111, Organization of Healthcare 10530125, Electronic Health Records 10530122, and Microsoft Office-Introduction 10103106*

## Health Information Clinical

**10530163 .....2 credits**

Provides a blend of supervised clinical experience in a healthcare facility with online classroom activities. Students apply skills and knowledge gained from previous courses in the health information management setting. Classroom activity includes discussion of clinical situations.

*Prerequisites: Legal Aspects of HIM 10530161, Health Data Analysis 10530132, Performance Improvement for Health Professions 10530160; Corequisites: Private and Government Reimbursement 10530146, HIM Advanced Coding 10530147, and Inpatient Procedure Coding 10530166*

## HIM Advanced Coding

**10530147.....3 credits**

Builds on basic coding knowledge and skills through the coding of clinical case studies and actual medical records. Students access, review, and code electronic medical records from the virtual lab software; perform data quality reviews to validate code assignment and compliance with reporting requirements; develop appropriate physician queries; and assign diagnosis related groups (DRGs) and ambulatory payment classifications (APCs) with entry-level proficiency using computerized encoding and grouping software.

*Prerequisites:* ICD Diagnosis Coding 10530197 and CPT Coding 10530144; *Corequisites:* Private & Government Reimbursement 10530146 and Inpatient Procedure Coding 10530166

## Human Disease for the Health Professions

**10530182.....3 credits**

Focuses on the common diseases of each body system as encountered in all types of healthcare settings by health information professionals. Emphasizes understanding the etiology (causes), signs and symptoms, diagnostic tests, and treatment (including pharmacologic) of each disease.

*Prerequisites:* Medical Terminology 10501101 and Basic Anatomy 10806189

## ICD Diagnosis Coding

**10530197.....3 credits**

Prepares students to assign ICD diagnosis codes supported by medical documentation with entry-level proficiency. Students apply instructional notations, conventions, rules, and official coding guidelines when assigning ICD diagnosis codes to case studies and actual medical record documentation.

*Prerequisites:* Medical Terminology 10501101, Introduction to Health Records 10530111, and Basic Anatomy 10806189; *Corequisite:* Human Disease for the Health Professions 10530182

## Inpatient Procedure Coding

**10530166.....3 credits**

Prepares students to assign ICD procedure codes supported by medical documentation with entry-level proficiency. Students apply instructional notations, conventions, rules, and official coding guidelines when assigning ICD procedure codes to case studies and actual medical record documentation.

*Prerequisites:* Medical Terminology 10501101, Introduction to Health Records 10530111, Basic Anatomy 10806189, and Human Disease for the Health Professions 10530182

## Intro to Ethics: Theory & Application

**10809166 .....3 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 Psychology

**10809198 .....3 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.

## Introduction to Health Records

**10530111 .....3 credits**

Focuses on the purpose, format, content, use, confidentiality, and administrative issues of a patient's medical history and care. Students study the use of the patient's medical record as a basis for planning patient care, documenting communication between the health care provider and any other health professional contributing to the patient's care, assisting in protecting the legal interest of the patient and the health care providers responsible for the patient's care, and documenting the care and services provided to the patient. Emphasizes accuracy, organization, and confidentiality. Students are introduced to electronic medical record (EMR) concepts.

*Corequisite:* Medical Terminology 10501101

## Introductory Statistics

**10804189 .....3 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 10834109 with a grade of "C" or better or College Math 10804107 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.

## Legal Aspects of HIM

**10530161 .....2 credits**

Focuses on regulations for the content, access, disclosure, privacy, confidentiality, security, retention, and destruction of health information. Includes an overview of the US legal system.

*Corequisite:* Electronic Health Records 10530122

## Management of Health Information Services

**10530167 .....3 credits**

Examines the principles of management to include planning, organizing, human resource management, directing, and controlling as related to the health information department.

*Prerequisites:* Organization of Healthcare 10530125, Legal Aspects of HIM 10530161, Health Data Analysis 10530132, and Performance Improvement for the Health Professions 10530160

## Medical Terminology

**10501101..... 3 credits**

Focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Learners practice formation, analysis, and reconstruction of terms. Emphasizes spelling, definition, and pronunciation. Introduces operative, diagnostic, therapeutic, and symptomatic terminology of all body systems as well as systemic and surgical terminology.

## Microsoft Office-Introduction

**10103106 .....3 credits**

Develops introductory skills in the Microsoft Office Suite (Word, Excel, Access, PowerPoint, and Outlook) while reinforcing the students' knowledge of computer concepts, Windows Explorer, and web usage. Students should possess basic keyboarding, mouse and Windows 10 skills. Students may develop these skills in the LiNK while concurrently enrolled in this course.

## 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 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.*

## Organization of Healthcare

**10530125.....2 credits**

Examines the organization and delivery of health-care services, external standards, regulations, initiatives, payment and reimbursement systems, and healthcare providers and disciplines.

*Corequisite: English Composition 1 10801136*

## Performance Improvement for Health Professions

**10530160 .....3 credits**

Examines healthcare performance improvement systems. Includes performance assessment, measurement, and improvement as well as patient safety, risk management, utilization management, and medical staff credentialing.

*Prerequisites: Introduction to Health Records 10530111, Organization of Healthcare 10530125, Electronic Health Records 10530122, and Microsoft Office-Introduction 10103106*

## Private and Government Reimbursement

**10530146 .....3 credits**

Introduces students to the vocabulary of private healthcare and government reimbursement. Students will identify and compare the varieties of private and government healthcare insurance including the advantages and disadvantages of each for the provider and for the policyholder. HIPAA guidelines are utilized throughout.

*Prerequisites: ICD Diagnosis Coding 10530197 and CPT Coding 10530144; Corequisite: Inpatient Procedure Coding 10530166*

## RHIT Test Prep

**10530164 ..... 1 credit**

Explores strategies for preparing for the Registered Health Information Technician (RHIT) examination, including study skills, test-preparation skills, and test-taking skills. Includes a basic review of content related to the examination.

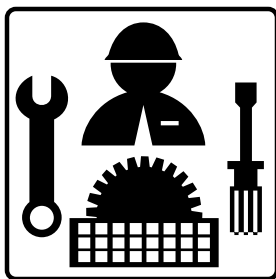
*Prerequisites: Legal Aspects of HIM 10530161, Health Data Analysis 10530132, Performance Improvement for Health Professions 10530160, and Inpatient Procedure Coding 10530166; Corequisites: HIM Advanced Coding 10530147 and Private and Government Reimbursement 10530166*

## 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. 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.*



# heating, ventilation, and air conditioning (hvac) installer

## Technical Diploma

**Program Code: 31-401-3**

**Total Credits: 27**

Mid-State's Heating, Ventilation, and Air Conditioning (HVAC) Installer program provides the hands-on foundation needed for an entry-level position in the heating, ventilation, air conditioning (HVAC) fields. Graduates will understand the various components of heating, ventilation, air-conditioning, and refrigeration systems, including furnaces, ductwork, boilers, hydronic piping, HRVs (heat recovery ventilators), evaporators, condensers, circuits, and controls. Students will also explore geothermal, biomass, and solar heating systems. Through hands-on classroom lab activities, students will join various piping types, design and construct ductwork, and install a complete residential HVAC system. They will also learn the electrical skills necessary to read wiring diagrams and troubleshoot mechanical control systems. Graduates are prepared to take the EPA 608 Technician Certification exam for refrigerants.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

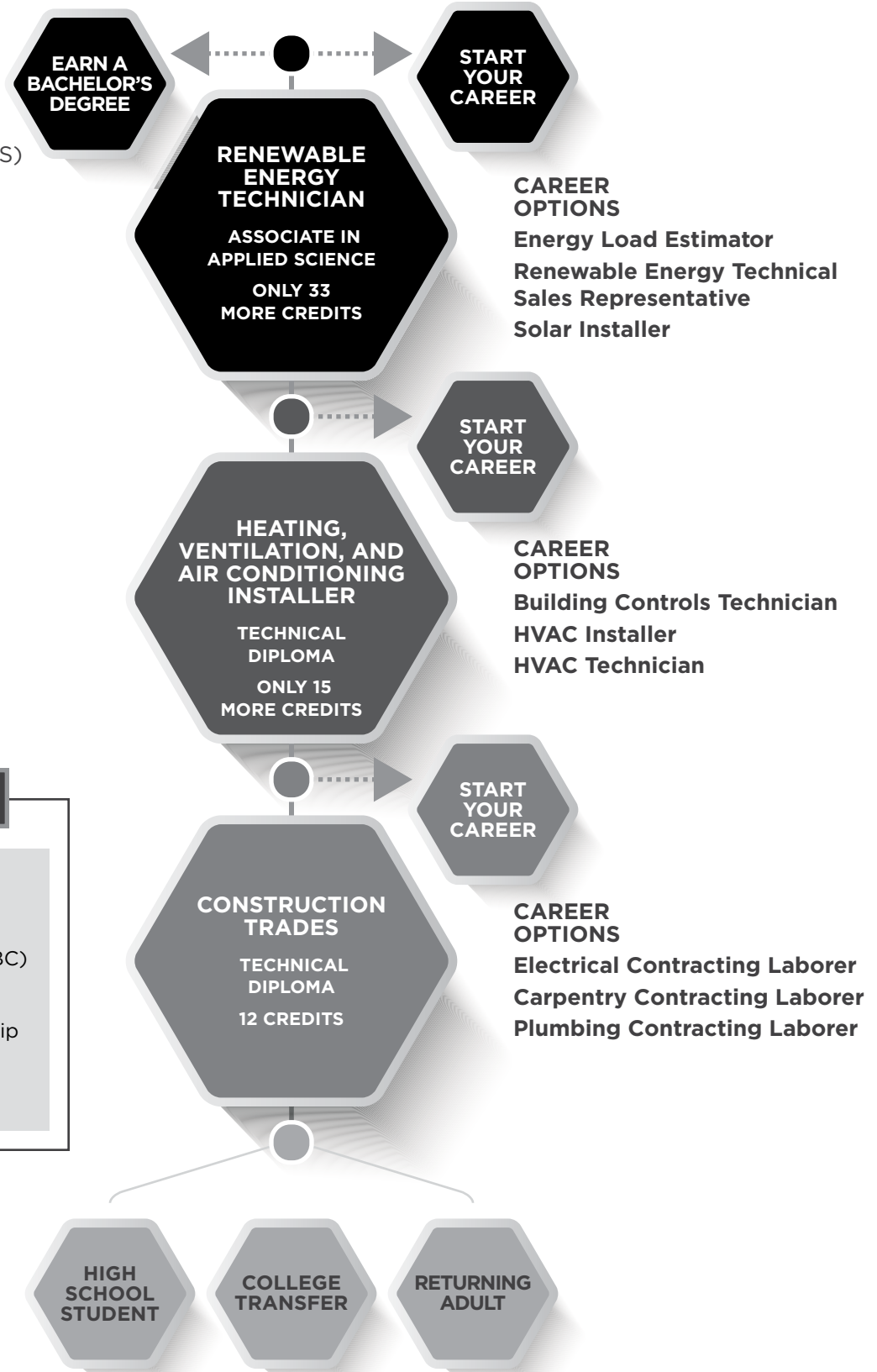
**STEVENS POINT CAMPUS**  
1001 Centerpoint Drive  
Stevens Point, WI 54481

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

**BACHELOR'S DEGREE OPTIONS**

UW-River Falls,  
Sustainable Management (BS)

For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).



**OTHER OPTIONS**

**APPRENTICESHIP OPPORTUNITIES**

- Carpenter Apprenticeship
- Construction Electrician (ABC) Apprenticeship
- Construction Electrician (IBEW-NECA) Apprenticeship
- Plumber Apprenticeship
- Steamfitter and Steamfitter Service Apprenticeship

College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**



## PROGRAM OUTCOMES

Employers will expect you, as a Heating, Ventilation, and Air Conditioning (HVAC) Installer graduate, to be able to:

- Join pipes or tubing to equipment and to fuel, water, or refrigerant source to form complete circuit.
- Test pipe or tubing joints or connections for leaks, using pressure gauge or soap-and-water solution.
- Lay out and connect electrical wiring between controls and equipment, according to wiring diagrams, using electrician's hand tools.
- Install, connect, and adjust thermostats, humidistats, and timers using hand tools.
- Test electrical circuits or components for continuity using electrical test equipment.
- Repair or replace defective equipment, components, or wiring.
- Obtain and maintain required certifications.
- Install ductwork and test for leaks.
- Size and lay out ductwork.
- Comply with all applicable standards, policies, and procedures, including safety procedures and the maintenance of a clean work area.
- Inspect and test systems to verify system compliance with plans and specifications or to detect and locate malfunctions.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students are notified of TSA reporting in their final few courses of the program.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

**10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 ..... 2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 ..... 3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 ..... 3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*



# course descriptions

## **Blueprint Reading for Construction Trades**

**10601130.....2 credits**

Develops the ability to read blueprints for commercial and non-commercial structures. Emphasizes blueprints drawn by licensed architects, covering plumbing, electrical wiring, structural framing, millwork, interior and exterior details, and basic information.

## **Construction Fundamentals**

**10482107.....2 credits**

Studies the concepts associated with the theory, materials, and methods used in construction, including footings and foundations, walls, floors, roofs and roof materials, exterior finishes, interior walls, ceiling and floor finishes, insulation types, vapor and air infiltration, and sound protection. Students also become familiar with blueprint reading and examine all trades associated with construction, including, electrical, HVAC, and plumbing. Safe use of the appropriate tools for each trade is covered.

## **Electrical Controls & Systems for Buildings**

**10483130.....3 credits**

Topics include an introduction to AC/DC electricity and the physical laws that apply to electronic circuits. Direct current (DC) covers basic definitions of voltage, current, and resistance and analysis of series and parallel resistive circuits. Alternating current (AC) includes an introduction to AC generation, capacitors, inductors, and transformers and their applications in electronic circuits. Additional topics include control circuits, symbols, diagrams, protection devices, relays, thermostats, single-phase motors, control components, and troubleshooting ACR system wiring diagrams.

*Corequisite: Electrical Circuits I 10605105 or Intro to Electronics 10605108 or Electricity for the Construction Trades 10601140*

## **Electricity for the Construction Trades**

**10601140.....2 credits**

This course is an introduction to electrical theory and application for those in the construction and building trades. Content includes AC and DC circuits, schematics, Ohms law, multimeter use and circuit troubleshooting. This course will also provide an introduction to the contents of the National Electric Code (NEC).

## **Energy Load Estimation and Modeling**

**10483115.....3 credits**

In this course students will develop the skills to do residential and light commercial energy load estimations. Students will calculate heating and cooling building loads and estimate energy consumption rates and quantities. The student will also estimate energy upgrades such as insulation, window improvements, etc. and calculating payback and fuel savings. The course covers a variety of computer programs available for analyzing buildings.

## **HVAC Air Conditioning Fundamentals**

**10601120.....2 credits**

Topics include air conditioning principles and terms, physical principles of air movement, air filtering and humidity, and methods of conditioning air for comfort and health. Also covers the proper use of psychrometers, dry bulb

thermometers, hygrometers, and reading and interpretation of psychrometric charts and scales as well as ASHRAE and BPI ventilation standards for residential units. (HVAC is a common industry reference to heating, ventilation, and air conditioning.)

## **HVAC Heating Fundamentals**

**10601110.....2 credits**

Provides an introduction to how homes and buildings are heated. Topics include introduction to heat principles, temperature measurement, fuels and other sources of heat, combustion, basic heating systems, basic furnace design, boiler design and operation, venting of furnaces, chimney or exhaust gases, and system controls. (HVAC is a common industry reference to heating, ventilation, and air conditioning.)

## **Intro to HVAC Installation**

**10601121.....2 credits**

Addresses residential and light commercial heating and cooling systems. Emphasizes the diversity of heating and cooling systems and how they operate. Students participate in the installation of a variety of HVAC systems and troubleshoot and service systems. (HVAC is a common industry reference to heating, ventilation, and air conditioning.)

## **OSHA 30 for the Construction Trades**

**10476170.....2 credits**

The Occupational Safety and Health Administration (OSHA) 30 for the Construction Trades course teaches construction related workers about their rights, employer responsibilities and how to identify, abate, avoid and prevent job related hazards. Course outcomes align with the training outcomes recommended by OSHA. Upon successful completion, students will receive an OSHA 30 Card.

## **Piping Applications**

**10483121.....3 credits**

Presents the fundamentals of plumbing and piping installation practices. Laboratory activities provide students with basic pipe joining processes associated with the plumbing and HVAC industries.

## **Sustainable Heating System Design & Installation**

**10483110.....3 credits**

Addresses solar thermal, geothermal, and biomass heating systems. Students participate in the installation and design of a solar hot water system. Topics include safety; system design and layout; component selection; mounting collectors; installing and insulating copper tubing; and installing a storage tank, heat exchanger, circulation pump, and other system components.

## **Welding Fundamentals 1**

**10442117.....1 credit**

An introduction to fundamental welding techniques with an emphasis on safe work habits that covers the processes of FCAW, GMAW, and OXY-Fuel cutting. Classroom instruction paired with lab activities are designed to provide fundamental skills in each of the welding processes covered in the class.



# hospitality management

## Associate of Applied Science Program Code: 10-109-2 Total Credits: 65-66

Through Mid-State's Hospitality Management program, students will develop a wide array of skills useful in various roles within hospitality and tourism, including a fundamental understanding of food service operations, hospitality sales and marketing, events planning, management principles, customer service, effective communication, and creative thinking. Students in this program engage in various activities and learning opportunities surrounding hospitality and tourism. You will plan events, produce sales and marketing projects, draft budgets, apply culinary skills and plan menus, practice effective management and customer service, and participate in an industry-related internship.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

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- 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

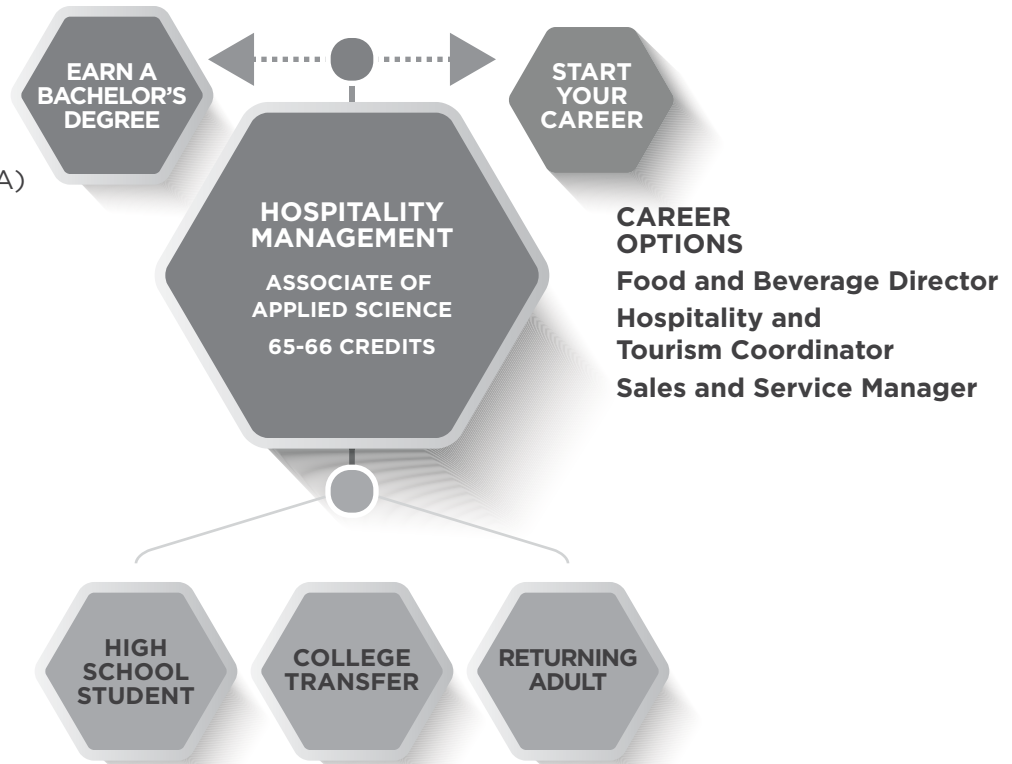
**STEVENS POINT CAMPUS**  
1001 Centerpoint Drive  
Stevens Point, WI 54481

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

## BACHELOR'S DEGREE OPTIONS

Lakeland University,  
Hospitality Management (BA)

**For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**College Credit • Dual Credit • Military Experience • Work Experience**  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10104102	Marketing Principles	3
10109101	Exploring Hospitality	3
10106106	Quality Customer Service	3
10316112	Sanitation for Food Service Operations	1
10809103	Think Critically & Creatively	3
10801136	English Composition 1	3

Term		18-19 credits
10109105	Hospitality Concept Development	3
10109112	Tourism	3
10109157	Internship-Tourism, Lodging, Guest Services	1
10316125	Introduction to Food Production	3
10316126	Culinary Applications	2
10801196	Oral/Interpersonal Communication -or-	
10801198	Speech	3
10804107	College Mathematics	3
	-or-	
10804118	Intermediate Algebra with Applications	4
	-or-	
10804189	Introductory Statistics	3

Term		16 credits
10109110	Room Operations Division	3
10109130	Hospitality Sales and Promotion	3
10109134	Cost Control-Revenue Management	3
10109158	Internship-Culinary, Food/Beverage, Special Events	1
10316127	Menu Planning	3
10316160	Catering and Special Event Planning	3

Term		15 credits
10109107	Hospitality Law and Liability	3
10196191	Supervision	3
10196193	Human Resource Management	3
10809166	Intro to Ethics: Theory & Application	3
10809198	Intro to Psychology	3

**Total credits 65-66**

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		7 credits
10106106	Quality Customer Service	3
10109101	Exploring Hospitality	3
10316112	Sanitation for Food Service Operations	1

Term		9 credits
10109110	Room Operations Division	3
10801136	English Composition 1	3
10809103	Think Critically & Creatively	3

Term		9-10 credits
10316125	Introduction to Food Production	3
10804107	College Mathematics	3
	-or-	
10804118	Intermediate Algebra with Applications	4
	-or-	
10804189	Introductory Statistics	3
10809198	Intro to Psychology	3

Term		9 credits
10104102	Marketing Principles	3
10109130	Hospitality Sales and Promotion	3
10109157	Internship-Tourism, Lodging, Guest Services	1
10316126	Culinary Applications	2

Term		9 credits
10109105	Hospitality Concept Development	3
10316160	Catering and Special Event Planning	3
10801196	Oral/Interpersonal Communication -or-	
10801198	Speech	3

Term		9 credits
10109112	Tourism	3
10316127	Menu Planning	3
10809166	Intro to Ethics: Theory & Application	3

Term		7 credits
10109107	Hospitality Law and Liability	3
10109158	Internship-Culinary, Food/Beverage, Special Events	1
10196193	Human Resource Management	3

Term		6 credits
10109134	Cost Control-Revenue Management	3
10196191	Supervision	3

**Total credits 65-66**

## Catering and Special Event Planning

**10316160 .....3 credits**

Introduces how to develop, plan and execute catering and special events to the exacting details of the customer. Emphasis is on the importance of details in planning to achieve the best possible results. Activities will encourage both creative thinking and functionality to ensure customer satisfaction and business profitability.

## College Mathematics

**10804107 .....3 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.*

## Cost Control-Revenue Management

**10109134 .....3 credits**

Covers the concepts and techniques of controlling costs with particular emphasis placed on cost-to-sales relationship. Utilizing industry specific technology, students calculate the cost of goods, selling price and relative percentages. They also forecast sales, conduct yield analyses and calculate break-even points.

## Culinary Applications

**10316126.....2 credits**

Applies the basic principles of culinary calculations involved in the purchase, preparation and use of goods related to the hospitality field.

## English Composition 1

**10801136 .....3 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.*

## Exploring Hospitality

**10109101.....3 credits**

Introduces students to the broad field of hospitality management. Typical career areas include food service, lodging, travel/tourism, and recreation. The course will explore the industry from historical to contemporary career opportunities.

## Hospitality Concept Development

**10109105 .....3 credits**

Introduces the learner to the basic process and consideration for a hospitality business from concept to start-up. Included in this study will be concept and menu development, equipment, facility layout, and design. This course will evaluate the business idea from a financial, operational, and practical view.

## Hospitality Law and Liability

**10109107 .....3 credits**

Introduces legal principles together with standard business law concepts and emphasizes their implications for the hospitality and tourism industry. Among the topics covered are contracts, torts and negligence, hotel/guest relationships, ADA, food service and employment laws and consumer protection. Case studies involving the basic principles of law assist in developing judgment in these areas.

## Hospitality Sales and Promotion

**10109130 .....3 credits**

Covers sales and promotion in the hospitality industry. The emphasis is on promoting hospitality entities to attract new customers, selling principles and merchandising techniques for products and services, and innovative ways to maintain the interest of existing customers.

## Human Resource Management

**10196193.....3 credits**

Applies skills and tools necessary to perform human resource functions in an organization. Each learner demonstrates skill in following EEOC laws; writing job descriptions; recruiting, selecting, and orienting employees; developing policies and procedures; developing and conducting training; designing performance appraisal plans; developing employee development plans; and selecting compensation and benefit strategies.

## 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.*



# course descriptions

## **Internship-Culinary, Food/Beverage, Special Events 10109158 ..... 1 credit**

This internship provides students with practical knowledge and experience in the hospitality industry through the lens of restaurant, food and beverage, and special event service workers and managers. Integrating the theories and techniques learned in previous courses with specific off-campus occupational experiences at selected training sites allows students to gain a real-world perspective of this segment of the industry.

*Prerequisites: Admission to Hospitality Management program 101092 and completion of 10 core credits within the Hospitality Management program or consent of instructor.*

## **Internship-Tourism, Lodging, Guest Services 10109157 ..... 1 credit**

This internship provides students with practical knowledge and experience in the hospitality industry through the lens of tourism, lodging, and guest services. Integrating the theories and techniques learned in previous courses with specific off-campus occupational experiences at selected training sites allows students to gain a real-world perspective of this segment of the industry. Students will be taking this course as part of the National Restaurant Association's "Manage First" program and will take an industry certification exam at the end of the course.

*Prerequisites: Admission to Hospitality Management program 101092 and completion of 10 core credits within the Hospitality Management program or consent of instructor.*

## **Intro to Ethics: Theory & Application 10809166 .....3 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 Psychology 10809198 .....3 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.*

## **Introduction to Food Production 10316125.....3 credits**

Introduces quantity food production to the non-culinary student. Topics include the preparation of a variety of menu items, equipment use, cooking methods and terminologies, recipe conversion and the essentials of timing and coordination of service.

*Prerequisite: Sanitation for Food Service Operations 10316112*

## **Introductory Statistics 10804189 .....3 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.*

## **Marketing Principles 10104102 .....3 credits**

This course serves as an introduction to the fundamental marketing concepts used to apply marketing strategies to product development, distribution, pricing, and promotion of goods and services.

## **Menu Planning 10316127 .....3 credits**

A hands-on approach to planning, creating, and maintaining effective menus. Discussions include menu items and placement, food costing and creative menu designs for visual appeal. Menu planning and design software may be utilized.

## **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 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.*

## **Quality Customer Service 10106106 .....3 credits**

Addresses sensitivity in communicating with customers and co-workers. Includes international communications, teamwork, working relationships, and telephone skills.

## Room Operations Division

### 10109110.....3 credits

Investigates the organization, performance, evaluation, and interdependency of the rooms division of a lodging facility (front desk, reservations, housekeeping, facilities, and telephone systems) as essential components of operational success and guest satisfaction.

## Sanitation for Food Service Operations

### 10316112 ..... 1 credit

Focus on the development of skills to follow sanitation and hygiene provisions in state codes. The Servsafe certification test is included.

## 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. 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.*

## Supervision

### 10196191 .....3 credits

Applies skills and tools necessary to perform the functions of a contemporary frontline leader. Students engage in operational planning, analyze organizational structures, review the staffing process, employ techniques to enhance employee personal and group effectiveness, and develop control techniques to measure effectiveness in the above areas.

## Think Critically & Creatively

### 10809103 .....3 credits

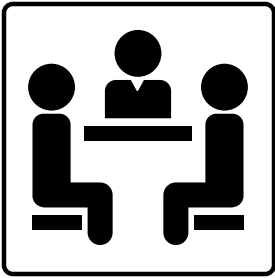
Provides instruction in the vital, realistic, and practical methods of thinking that are in high demand in all occupations of substance today. Provides in-depth consideration of decision making, problem solving, detailed analysis of ideas, troubleshooting, argumentation, persuasion, creativity, setting 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.*

## Tourism

### 10109112 .....3 credits

Focuses on the opportunities and advantages of approaching tourism from a community viewpoint. Students study the economic, employment and environmental impact of tourism on the quality of life experienced by a community. Particular emphasis will be placed on the impact of tourism in WI.



# human resources assistant

## Technical Diploma

**Program Code: 31-116-1**

**Total Credits: 27**

Mid-State's Human Resources Assistant program prepares students to successfully manage activities involving new staff, including recruiting, interviewing, hiring, and onboarding. Graduates are also able to provide support for all existing staff regarding employment needs and integrate human resources within an organization's strategic initiatives. In this program you'll engage in various activities and learning opportunities focused on employee support, vital aspects of the hiring process, and labor relations and law. You'll also develop and practice effective communication skills to meet the needs of employees in any organization.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://mstc.edu/programcosts)

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# career pathway

## BACHELOR'S DEGREE OPTIONS

Capella University,  
Business Management (BS)

Herzing University,  
Business Management (BS)

Lakeland University,  
Business Administration-  
Management Emphasis (BA)

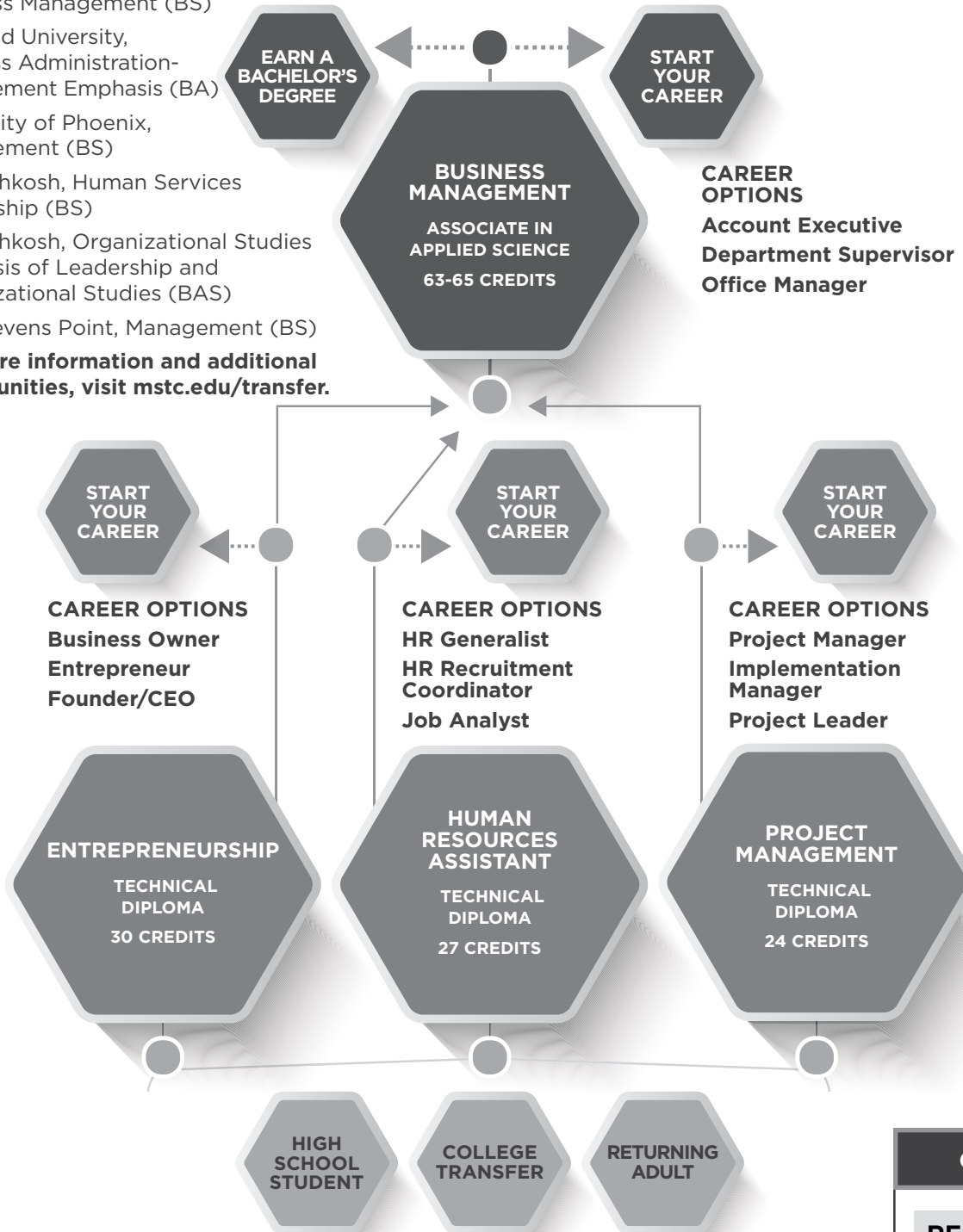
University of Phoenix,  
Management (BS)

UW-Oshkosh, Human Services  
Leadership (BS)

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

UW-Stevens Point, Management (BS)

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opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).**



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## Employment Law

**10102110 .....3 credits**

Introduces a broad scope of employment laws and provides the opportunity to apply these laws to the employment arena. Includes laws relating to anti-discrimination, including the Civil Rights Act, ADEA, and ADA; wage and hour regulation, including FLSA; employer-provided pensions, including ERISA; health insurance, including COBRA and ACA; and unemployment and worker's compensation insurance.

## English Composition 1

**10801136 .....3 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.*

## Finance and Budgeting

**10102121 .....3 credits**

For the nonfinancial manager, this course introduces the language of accounting, finance, and budgeting. Provides an overview of the use and analysis of financial statements. Business planning and the foundations and development of budgets are explored. Business financing basics and the securing of necessary financing for a business are covered. Practical application of financial statement creation and analysis, budgetary activities, and finance calculations are included.

## Human Resource Management

**10196193 .....3 credits**

Applies skills and tools necessary to perform human resource functions in an organization. Each learner demonstrates skill in following EEOC laws; writing job descriptions; recruiting, selecting, and orienting employees; developing policies and procedures; developing and conducting training; designing performance appraisal plans; developing employee development plans; and selecting compensation and benefit strategies.

## Intro to Sociology

**10809196 .....3 credits**

Introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions of family, politics, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, and social organization.

*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.*

## Microsoft Office-Introduction

**10103106 .....3 credits**

Develops introductory skills in the Microsoft Office Suite (Word, Excel, Access, PowerPoint, and Outlook) while reinforcing the students' knowledge of computer concepts, Windows Explorer, and web usage. Students should possess basic keyboarding, mouse and Windows 10 skills. Students may develop these skills in the LiNK while concurrently enrolled in this course.

## Organizational Behavior

**10102138 .....3 credits**

This course assists the learner in becoming a more effective co-worker, team member and organizational citizen through an understanding of the key principles of how people behave within organizations and in turn, predict and influence future behavior. As a result, the learner will analyze organizational structures, assess organizational culture, analyze leadership types and styles, apply conflict resolution strategies, explore power relationships, implement change management techniques, demonstrate effective team management and describe the ingredients of diversity as these aspects are related to people's behavior in organizations.

## Speech

**10801198 .....3 credits**

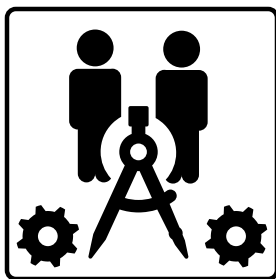
Explores the fundamentals of effective oral presentation to small and large groups. Topic selection, audience analysis, methods of organization, research, structuring evidence and support, delivery techniques, and other essential elements of speaking successfully, including the listening process, form the basis of this course. Bring transcripts for further evaluation if they do not meet these requirements.

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## Supervision

**10196191 .....3 credits**

Applies skills and tools necessary to perform the functions of a contemporary frontline leader. Students engage in operational planning, analyze organizational structures, review the staffing process, employ techniques to enhance employee personal and group effectiveness, and develop control techniques to measure effectiveness in the above areas.



# industrial automation & controls engineering technology

**Associate in Applied Science (AAS)**  
**Program Code: 10-605-4**  
**Total Credits: 63**

Unique in the Wisconsin Technical College System, the Industrial Automation & Controls Engineering program at Mid-State prepares graduates to measure and control industrial processes in today's high-tech manufacturing environments. In this program you'll apply mathematical skill and basic laws of physical sciences to design, install, calibrate, maintain, troubleshoot, and repair industrial control systems. You'll learn to use a variety of different forms of instrumentation and have access to state-of-the-art equipment. Field trips to businesses that have process control systems as an integral part of operations extend your hands-on experience into the real world.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://mstc.edu/programcosts)

## ACADEMIC ADVISOR

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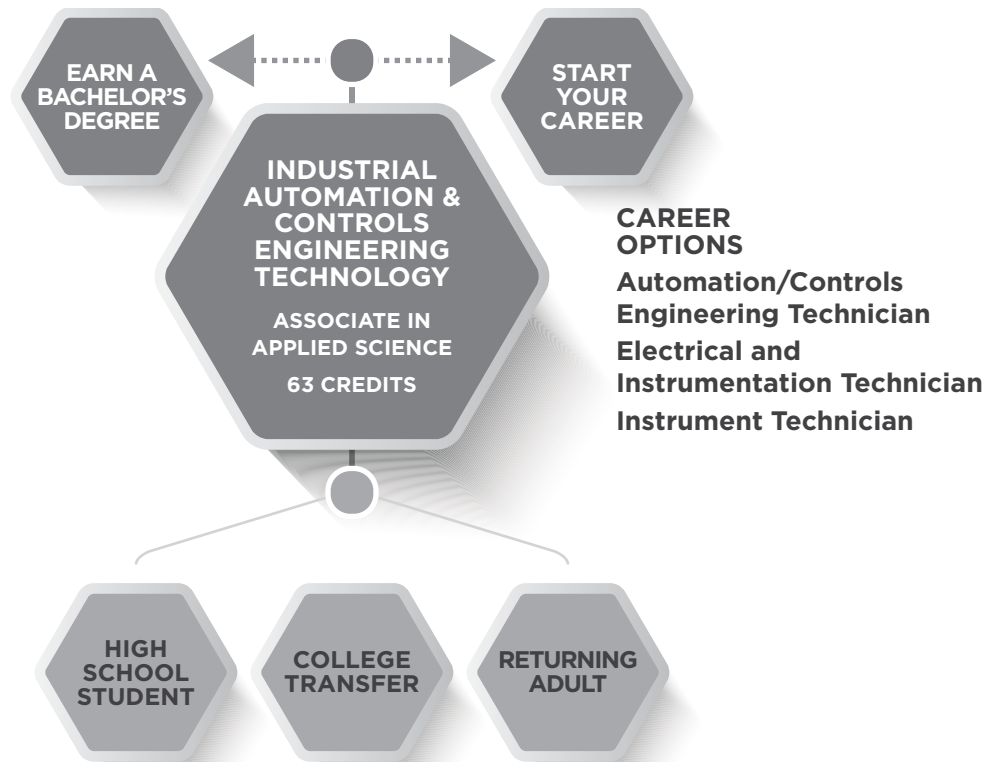
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## BACHELOR'S DEGREE OPTIONS

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## OTHER OPTIONS

### RELATED PROGRAMS

- Civil Engineering Technology-Highway Technician
- Electrical Power Engineering Technician

### APPRENTICESHIP OPPORTUNITIES

- Electrical & Instrumentation Technician Apprenticeship



**SAMPLE FULL-TIME CURRICULUM OPTION**

<b>Term</b>		<b>15 credits</b>
10605105	Electrical Circuits I	3
10605111	Introduction to Instrumentation	2
10605112	Process Documentation	1
10605131	Process Equipment	2
10801136	English Composition 1	3
10804118	Intermediate Algebra with Applications	4

<b>Term</b>		<b>15 credits</b>
10462107	Industrial Safety	2
10605110	Electrical Circuits II	3
10605117	Automation 1 - Beginning PLC	3
10623106	Intro to AutoCAD	1
10804196	Trigonometry with Applications	3
10806143	College Physics 1	3

<b>Term</b>		<b>16 credits</b>
10605100	Process Measurements Instrumentation	2
10605115	Semiconductor Technology	3
10605118	Automation 2 - Advanced PLC	3
10605121	Process Control Strategies	2
10804195	College Algebra with Applications	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3

<b>Term</b>		<b>17 credits</b>
10462132	Machine Shop Fundamentals	3
10462133	Electrical Controls for Industrial Automation	3
10605119	Automation 3 - HMI's & Networks	2
10605133	Process Troubleshooting Strategies	1
10605172	Process Systems	2
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
10809122	Intro to American Government <b>-or-</b>	
10809166	Intro to Ethics: Theory & Application	3

**Total credits 63**

## 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](http://mstc.edu/classfinder).

**SAMPLE PART-TIME CURRICULUM OPTION**

<b>Term</b>		<b>9 credits</b>
10605105	Electrical Circuits I	3
10605111	Introduction to Instrumentation	2
10804118	Intermediate Algebra with Applications	4

<b>Term</b>		<b>8 credits</b>
10462107	Industrial Safety	2
10605110	Electrical Circuits II	3
10804196	Trigonometry with Applications	3

<b>Term</b>		<b>6 credits</b>
10605112	Process Documentation	1
10605131	Process Equipment	2
10801136	English Composition 1	3

<b>Term</b>		<b>7 credits</b>
10605117	Automation 1 - Beginning PLC	3
10623106	Intro to AutoCAD	1
10806143	College Physics 1	3

<b>Term</b>		<b>8 credits</b>
10605118	Automation 2 - Advanced PLC	3
10605121	Process Control Strategies	2
10804195	College Algebra with Applications	3

<b>Term</b>		<b>9 credits</b>
10462132	Machine Shop Fundamentals	3
10462133	Electrical Controls for Industrial Automation	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3

<b>Term</b>		<b>8 credits</b>
10605100	Process Measurements Instrumentation	2
10605115	Semiconductor Technology	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3

<b>Term</b>		<b>8 credits</b>
10605119	Automation 3 - HMI's & Networks	2
10605133	Process Troubleshooting Strategies	1
10605172	Process Systems	2
10809122	Intro to American Government <b>-or-</b>	
10809166	Intro to Ethics: Theory & Application	3

**Total credits 63**

# course descriptions

## Automation 1 - Beginning PLC

**10605117 .....3 credits**

An overview of programmable logic controllers (PLCs) that provides a foundation of knowledge of the programming techniques, operation, and maintenance of PLCs used in typical industrial automation.

## Automation 2 - Advanced PLC

**10605118 .....3 credits**

A lab intensive course covering advanced PLC topics and programming techniques, analog I/O, VFDs, basic HMI interfaces, industrial robotics and troubleshooting.

*Prerequisite: Automation 1 - Beginning PLC 10605117 or consent of instructor*

## Automation 3 - HMI's & Networks

**10605119 .....2 credits**

A lab intensive course covering advanced PLC programming techniques, HMI programming, industrial robotic systems interface, networking basics and troubleshooting of automation systems.

*Prerequisite: Automation 1 - Beginning PLC 10605117*

## College Algebra with Applications

**10804195 .....3 credits**

Covers the skills needed for success in calculus and many application areas on a baccalaureate level. Topics include the real and complex number systems, polynomials, exponents, radicals, solving equations and inequalities (linear and nonlinear), relations and functions, systems of equations and inequalities (linear and nonlinear), matrices, graphing, conic sections, sequences and series, combinatorics, and the binomial theorem.

*Prerequisite: Trigonometry with Applications 10804196 with a grade of "C" or better or Intermediate Algebra with Applications 10804118 with a grade of "C" or better. Students without Trigonometry with Applications are encouraged to bring transcripts for individual course evaluation.*

## College Physics 1

**10806143 .....3 credits**

Presents the applications and theory of basic physics principles. This course emphasizes problem solving, laboratory investigation and applications. Topics include laboratory safety, unit conversions and analysis, kinematics, dynamics, work, energy, power, temperature and heat.

*Corequisite: Trigonometry with Applications 10804196*

## 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.*

## Electrical Circuits I

**10605105 .....3 credits**

An introduction to AC/DC electricity and the physical laws that apply to electronic circuits. Direct current (DC) covers basic definitions of voltage, current, and resistance and analysis of series and parallel resistive circuits.

Alternating current (AC) includes an introduction to AC generation, capacitors, inductors, and transformers and their applications in electronic circuits. Approximately 50 percent of the course is spent in the laboratory applying the principles and theory presented in the classroom.

*Corequisite: Intermediate Algebra with Applications 10804118*

## Electrical Circuits II

**10605110 .....3 credits**

Continues the study of AC/DC circuits started in Electrical Circuits I. Introduces advanced DC circuit analysis techniques such as Thevenin's Theorem and nodal analysis. Includes discussion of voltage and power theorems used in the analysis of AC circuits consisting of both resistance and reactance. The complex plane and construction of phasor diagrams are also discussed. Concludes with an introduction to electronic filter circuits used in transmission and communication equipment. Approximately 50 percent of the course is spent in the laboratory, applying the principles and theory presented in the classroom.

*Prerequisite: Electrical Circuits I 10605105 with a "C" or better;*

*Corequisite: Trigonometry with Applications 1080419*

## Electrical Controls for Industrial Automation

**10462133 .....3 credits**

Introduces the fundamentals of industrial motor controls, relay logic, ladder diagrams, industrial automation, and integrated manufacturing systems. The purpose of the course is to familiarize students with the terminology, capabilities, applications, and limitations of automated industrial controls through classroom and lab activities.

*Prerequisite: Electrical Circuits I 10605105*

## English Composition 1

**10801136 .....3 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.*

# course descriptions

## Industrial Safety

**10462107 .....2 credits**

Provides an overview of safety, health, and environmental issues as they relate to industry. Various types of hazards and the controls and equipment used to reduce risks from hazards are discussed. Focuses on understanding the Occupational Safety and Health Administration (OSHA) and its function as well as other regulatory and enforcement agencies associated with industrial safety, health, and the environment.

## 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 American Government

**10809122.....3 credits**

Introduces American political processes and institutions. Focuses on rights and responsibilities of citizens and the process of participatory democracy. Learners examine the complexity of the separation of powers and checks and balances. Explores the role of the media, interest groups, political parties, and public opinion in the political process. Also explores the role of state and national government in our federal system.

*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 AutoCAD

**10623106 ..... 1 credit**

This introductory course in computer-aided drafting (CAD) using AutoCAD software provides foundation skills in using CAD software to create and print two-dimensional technical drawings. This course is available to students in any program. Computer skills and prior knowledge of drawing/drafting techniques is recommended.

## Intro to Ethics: Theory & Application

**10809166 .....3 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 Psychology

**10809198 .....3 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.*

## Introduction to Instrumentation

**10605111 .....2 credits**

This introductory course on instrumentation emphasizes a functional and mathematical approach to the use and study of various pneumatic instruments and principles. Identifies the duties and functions of instruments and their components. Includes survey of pressure, level, flow, and temperature instruments and their mechanisms, and an introduction to process control, automation, and controllers.

*Corequisite: Intermediate Algebra w/Apps 10804118*

## Machine Shop Fundamentals

**10462132.....3 credits**

Students participating in this class will be introduced to common machine tools and their functions. Classroom activities and hands-on lab exercises will be used to introduce participants to some of the most common applications in machining. Lab activities will introduce students to shop safety and identification of machine tools. Students will also gain understanding of the basic processes performed with different machine tools and basic machine set up and operations.

## 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 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.*

## Process Control Strategies

**10605121 .....2 credits**

This course examines various methods and techniques used in process control, including control loop analysis, control tuning (PID) process and tuning methods, system gain, statistical control processes, cascade and feed forward control, split control, and other advanced control techniques.

*Prerequisite: Introduction to Instrumentation 10605111*

## Process Documentation

**10605112 ..... 1 credit**

This course will provide the student with the tools needed to read and understand process drawings and diagrams used in the process industries to maintain and troubleshoot industrial processes. Specific documentation includes piping and instrument diagrams (P&ID), process flow diagrams (PFD), block flow diagrams, control loop diagrams, functional diagrams, electrical diagrams, utility flow diagrams, wiring diagrams, schematics, isometric drawings.

## Process Equipment

**10605131 ..... 2 credits**

This course will provide students with detailed analysis of standard process equipment. Equipment discussed includes pumps, valves, piping, equipment connections, motors, tanks and vessels, basic wiring practices, compressors, regulators, boilers, containment, heat exchangers.

## Process Measurements Instrumentation

**10605100 ..... 2 credits**

Reviews basic principles and calibration standards and practices developed in instrument mechanics. Studies common sensing devices and components employed for the measurement of pressure, temperature, flow, level, and related phenomena.

*Prerequisite: Introduction to Instrumentation 10605111 with a "C" or better*

## Process Systems

**10605172 ..... 2 credits**

This course will provide students with detailed analysis of standard process systems and how they are monitored and controlled. Systems examined include water/steam services (boilers and cooling towers), thermal transfer systems and heat exchangers, compressors and vacuum systems, HVAC, turbines, distillation and strippers, refrigeration, separators.

*Prerequisite: Process Equipment 10605131*

## Process Troubleshooting Strategies

**10605133 ..... 1 credit**

This course develops employee skills related to troubleshooting and employment strategies in area manufacturing industries by working directly with companies that have agreed to partner with MSTC for this course. The course requires the student to work with a partnering company to assist in a problem solving or project work situation. Local companies are asked to submit a current problem or project with a narrow focus relating to industrial automation or instrumentation. The student meets with company personnel as needed, formulates the problem or project, and researches methods of solving or completing the project.

*Prerequisite: Process Control Strategies 10605121*

## Semiconductor Technology

**10605115 ..... 3 credits**

Presents semi-conductor principles with emphasis on practical applications. After reviewing diode and transistor characteristics, studies bias stabilizing techniques followed by an introduction to transistor amplifiers.

*Corequisite: Electrical Circuits II 10605110*

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

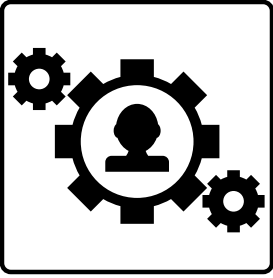
*Prerequisite: High School GPA of 3.0 or Accuplacer Reading of 253, Writing of 262, or ACT of 21 Reading/19 Writing, or completion of Intro to College Writing and/or Intro to College Reading with a "C" or better or equivalent. Students are encouraged to bring transcripts for further evaluation if they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

## Trigonometry with Applications

**10804196 ..... 3 credits**

Topics include circular functions, graphing of trigonometry functions, identities, equations, trigonometric functions of angles, inverse functions, solutions of triangles, complex numbers, DeMoivre's Theorem, polar coordinates, and vectors.

*Prerequisite: Intermediate Algebra with Applications 10804118 with a grade of "C" or better. Students without Intermediate Algebra with Applications are encouraged to bring transcripts for individual course evaluation.*



# industrial mechanical technician

## Associate in Applied Science (AAS) Program Code: 10-462-1 Total Credits: 60

Mid-State's Industrial Mechanical Technician program will give you the hands-on foundation necessary to confidently maintain, repair, and operate machinery and equipment in an industrial environment. You will learn to align, maintain, repair, and replace machine components as well as gain understanding of predictive and preventive maintenance, reliability-centered maintenance, and many other topics. The program emphasizes safety in the workplace and includes many hands-on and interactive classroom experiences, lab activities, and field trips.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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**



**ADAMS CAMPUS**  
401 North Main  
Adams, WI 53910

**MARSHFIELD CAMPUS**  
2600 West 5th Street  
Marshfield, WI 54449

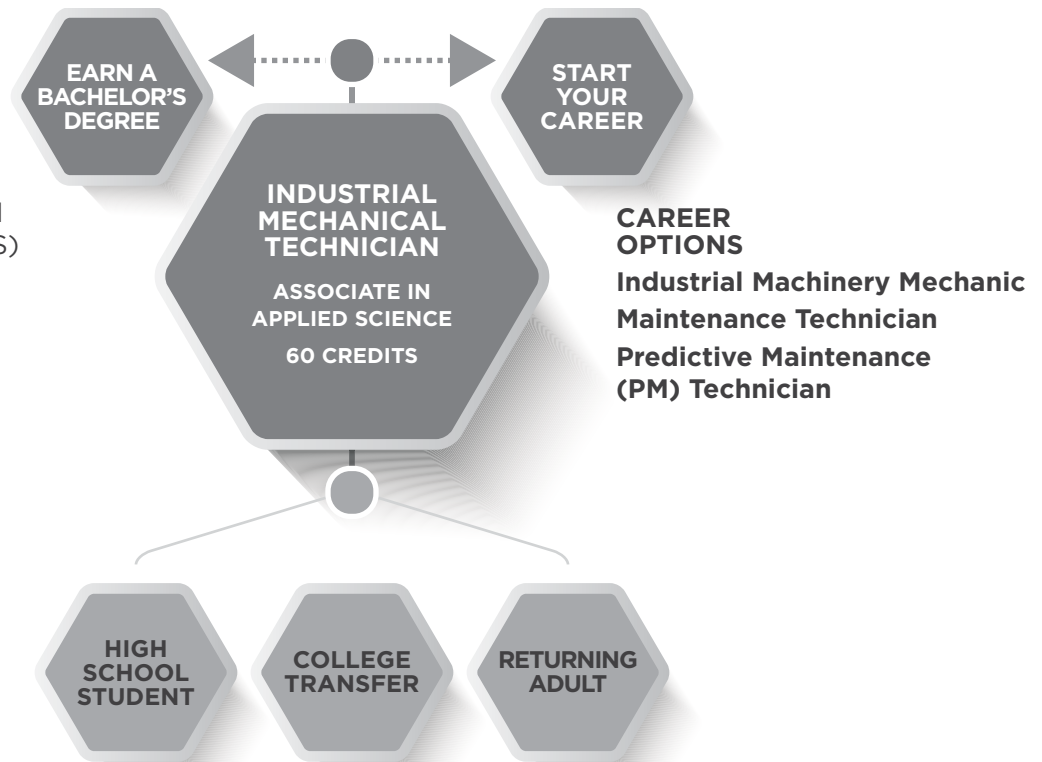
**STEVENS POINT CAMPUS**  
1001 Centerpoint Drive  
Stevens Point, WI 54481

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

## BACHELOR'S DEGREE OPTIONS

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

**For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**College Credit • Dual Credit • Military Experience • Work Experience**  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Machine Tool Technician
- Manufacturing Operations Management
- Stainless Steel Welding
- Welding

### APPRENTICESHIP OPPORTUNITIES

- Maintenance Technician Apprenticeship
- Millwright/Maintenance Mechanic Apprenticeship





## SAMPLE FULL-TIME CURRICULUM OPTION

Term	15 credits
10462122 Predictive, Preventive, and Reliability Maintenance	2
10462132 Machine Shop Fundamentals	3
10605105 Electrical Circuits I	3
10801136 English Composition 1	3
10804118 Intermediate Algebra with Applications	4

Term	15 credits
10462107 Industrial Safety	2
10462110 Material Handling	2
10462133 Electric Controls for Industrial Automation	3
10623106 Intro to AutoCAD	1
10623114 Intro to Inventor	1
10801196 Oral/Interpersonal Communication <b>-or-</b>	
10801198 Speech	3
10804196 Trigonometry with Applications	3

Term	16 credits
10442117 Welding Fundamentals 1	1
10442118 Welding Fundamentals 2	1
10462104 Fluid Process Systems	3
10462106 Mechanical Power Transmission	3
10605117 Automation 1 - Beginning PLC	3
10462131 Industrial Electric Power Applications	2
10809188 Developmental Psychology <b>-or-</b>	
10809198 Intro to Psychology	3

Term	14 credits
10457119 Fabrication Fundamentals 1	1
10457120 Fabrication Fundamentals 2	1
10462120 Industrial Hydraulics & Pneumatics	3
10605118 Automation 2 - Advanced PLC	3
10806143 College Physics 1	3
10809166 Intro to Ethics: Theory & Application	3

**Total credits 60**

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term	9 credits
10462122 Predictive, Preventive, and Reliability Maintenance	2
10462132 Machine Shop Fundamentals	3
10804118 Intermediate Algebra with Applications	4

Term	7 credits
10462107 Industrial Safety	2
10462110 Material Handling	2
10804196 Trigonometry with Applications	3

Term	8 credits
10442117 Welding Fundamentals 1	1
10442118 Welding Fundamentals 2	1
10605105 Electrical Circuits I	3
10801136 English Composition 1	3

Term	8 credits
10462133 Electric Controls for Industrial Automation	3
10623106 Intro to AutoCAD	1
10623114 Intro to Inventor	1
10801196 Oral/Interpersonal Communication <b>-or-</b>	
10801198 Speech	3

Term	8 credits
10462106 Mechanical Power Transmission	3
10462131 Industrial Electric Power Applications	2
10605117 Automation 1 - Beginning PLC	3

Term	8 credits
10457119 Fabrication Fundamentals 1	1
10457120 Fabrication Fundamentals 2	1
10806143 College Physics 1	3
10809188 Developmental Psychology <b>-or-</b>	
10809198 Intro to Psychology	3

Term	6 credits
10462104 Fluid Process Systems	3
10809166 Intro to Ethics: Theory & Application	3

Term	6 credits
10462120 Industrial Hydraulics & Pneumatics	3
10605118 Automation 2 - Advanced PLC	3

**Total credits 60**

## Automation 1 - Beginning PLC

**10605117 .....3 credits**

An overview of programmable logic controllers (PLCs) that provides a foundation of knowledge of the programming techniques, operation, and maintenance of PLCs used in typical industrial automation.

## Automation 2 - Advanced PLC

**10605118 .....3 credits**

A lab intensive course covering advanced PLC topics and programming techniques, analog I/O, VFDs, basic HMI interfaces, industrial robotics and troubleshooting.

*Prerequisite: Automation 1 - Beginning PLC 10605117 or consent of instructor*

## College Physics 1

**10806142 .....3 credits**

Presents the applications and theory of basic physics principles. This course emphasizes problem solving, laboratory investigation and applications. Topics include laboratory safety, unit conversions and analysis, kinematics, dynamics, work, energy, power, temperature and heat.

*Corequisite: Trigonometry with Applications 10804196*

## 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.*

## Electrical Circuits I

**10605105 .....3 credits**

An introduction to AC/DC electricity and the physical laws that apply to electronic circuits. Direct current (DC) covers basic definitions of voltage, current, and resistance and analysis of series and parallel resistive circuits.

Alternating current (AC) includes an introduction to AC generation, capacitors, inductors, and transformers and their applications in electronic circuits. Approximately 50 percent of the course is spent in the laboratory applying the principles and theory presented in the classroom.

*Corequisite: Intermediate Algebra with Applications 10804118*

## Electric Controls for Industrial Automation

**10462133.....3 credits**

Introduces the fundamentals of industrial motor controls, relay logic, ladder diagrams, industrial automation, and integrated manufacturing systems. The purpose of the course is to familiarize students with the terminology, capabilities, applications, and limitations of automated industrial controls through classroom and lab activities.

*Prerequisite: Electrical Circuits 1 10605105*

## English Composition 1

**10801136 .....3 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.*

## Fabrication Fundamentals 1

**10457119.....1 credit**

An introduction to structural shapes and sheet metal fabrication. Presents fabrication techniques, metal selection, and layout, cutting, bending, drilling, threading, and joining using manual equipment and techniques. Information is presented to the student and followed up with lab activities to provide a hands-on experience. Emphasizes developing an understanding of the tools, techniques, safe work habits, and application of sheet metal fabrication skills.

## Fabrication Fundamentals 2

**10457120.....1 credit**

An introduction to plate steel and heavy fabrication. Presents fabrication techniques using heavy fabrication equipment. CNC Cutting, Plate and Tube bending, Sawing and Shearing equipment will be presented and followed up with lab activities to provide a hands-on experience. Emphasizes developing an understanding of the equipment, techniques, safe work habits, and application of heavy metal fabrication skills.

## Fluid Process Systems

**10462104 .....3 credits**

Provides a "hands-on" approach to the study of fluid handling systems. A wide variety of system components, including pumps, piping, seals and packing, flow control devices, flow measuring devices, and pressure vessels, are studied. System design considerations for fluid media temperature, pressure, specific gravity, viscosity, solids concentrations, and volume requirements are analyzed. An introduction to refrigeration and air conditioning provides the student with a basic understanding of these systems.

## Industrial Electric Power Applications

**10462131 .....2 credits**

Introduces concepts and applications of typical 3-phase power systems used in industry with focus on selection of overload devices, fuse sizing, wire selection, electrical motor theory and applications, and introduction to variable frequency drives through lecture and lab activities.

*Corequisite: Industrial Electric Control Applications 10462130*

## Industrial Hydraulics & Pneumatics

**10462120 .....3 credits**

Studies basic principles of hydraulics and pneumatics. Covers the advantages, disadvantages, and inherent problems with these systems. Includes the principles of operation and the constructional features of pumps, motors, valves, seals, packing, and conductors as well as the physical properties of liquids. Students learn to identify various parts of a circuit and analyze them for their use.

*Prerequisite: Intermediate Algebra with Applications 10804118*

## Industrial Safety

**10462107 .....2 credits**

Provides an overview of safety, health, and environmental issues as they relate to industry. Various types of hazards and the controls and equipment used to reduce risks from hazards are discussed. Focuses on understanding the Occupational Safety and Health Administration (OSHA) and its function as well as other regulatory and enforcement agencies associated with industrial safety, health, and the environment.

## 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 AutoCAD

**10623106 ..... 1 credit**

This introductory course in computer-aided drafting (CAD) using AutoCAD software provides foundation skills in using CAD software to create and print two-dimensional technical drawings. This course is available to students in any program. Computer skills and prior knowledge of drawing/drafting techniques is recommended.

## Intro to Ethics: Theory & Application

**10809166 .....3 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 Inventor

**10623114 ..... 1 credit**

This course is an introduction to Inventor by AutoDesk. Students will learn how to create 3D models of basic objects, add dimensioning, and generate multiview projections.

*Corequisite: Intro to AutoCAD 10623106*

## Intro to Psychology

**10809198 .....3 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.*

## Machine Shop Fundamentals

**10462132 .....3 credits**

Students participating in this class will be introduced to common machine tools and their functions. Classroom activities and hands-on lab exercises will be used to introduce participants to some of the most common applications in machining. Lab activities will introduce students to shop safety and identification of machine tools. Students will also gain understanding of the basic processes performed with different machine tools and basic machine set up and operations.

## Material Handling

**10462110 .....2 credits**

Introduces the concepts and equipment that transport solid materials in the industrial production process. Various types of equipment, including rigging, cranes, mechanical conveyors, pneumatic conveyors, elevators, and lift trucks, are discussed. Practical applications and use guidelines are presented to promote the safe and efficient use of this type of material handling equipment.

## Mechanical Power Transmission

**10462106 .....3 credits**

A study of the systems and components that transmit power from the prime mover through the system. Gear trains, linkages, clutches, couplings, and flexible drives are evaluated mathematically in lab situations.

## 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 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.*

## **Predictive, Preventive, and Reliability Maintenance 10462122.....2 credits**

An exploration of the various maintenance systems and approaches used to maintain manufacturing and industrial facilities. Through various hands-on labs and class demonstrations, learners will explore Computerized Maintenance Management Systems (CMMS) as well as the techniques and tools associated with vibration analysis, thermography, precision alignment, and ultrasound.

## **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. 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.*

## **Trigonometry with Applications 10804196 .....3 credits**

Topics include circular functions, graphing of trigonometry functions, identities, equations, trigonometric functions of angles, inverse functions, solutions of triangles, complex numbers, DeMoivre's Theorem, polar coordinates, and vectors.

*Prerequisite: Intermediate Algebra with Applications 10804118 with a grade of "C" or better. Students without Intermediate Algebra with Applications are encouraged to bring transcripts for individual course evaluation.*

## **Welding Fundamentals 1 10442117 ..... 1 credit**

An introduction to fundamental welding techniques with an emphasis on safe work habits that covers the processes of FCAW, GMAW, and OXY-Fuel cutting. Classroom instruction paired with lab activities are designed to provide fundamental skills in each of the welding processes covered in the class.

## **Welding Fundamentals 2 10442118 ..... 1 credit**

An introduction to fundamental welding techniques with an emphasis on safe work habits that covers the processes of GTAW, SMAW and Plasma cutting. Classroom instruction paired with lab activities are designed to provide fundamental skills in each of the welding processes covered in the class.



# it computer support specialist

## Associate in Applied Science (AAS) Program Code: 10-154-3 Total Credits: 60-61

The IT Computer Support Specialist program prepares individuals for help desk positions that provide technical support, assistance, advice, troubleshooting, training, and documentation to computer end users for hardware, software, and systems. Graduates have a working knowledge of computer hardware and software and their applications within wide area networks. In this program, hands-on instruction will build your familiarity with various desktop and server environments; basic computer network technologies; help desk ticketing, management and customer support; and database design, development, and administration. The program helps to prepare graduates to test for the CompTIA A+ and Linux+ certifications as well as the Microsoft Certified Solutions Associate for Windows 10.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

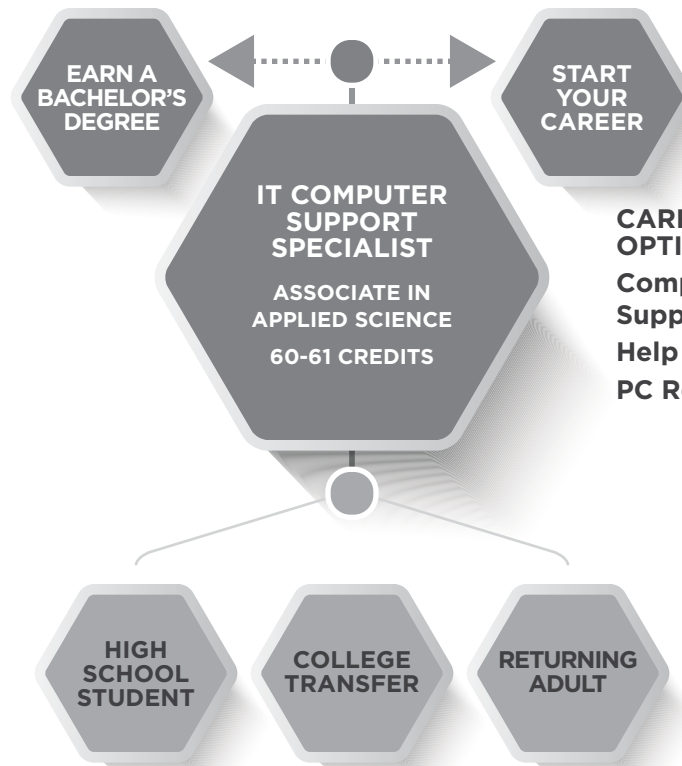
**STEVENS POINT CAMPUS**  
1001 Centerpoint Drive  
Stevens Point, WI 54481

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

## BACHELOR'S DEGREE OPTIONS

Lakeland University,  
Computer Science (BA)

For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).



## CAREER OPTIONS

Computer Support/Technical  
Support Specialist  
Help Desk Technician  
PC Repair Technician

College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Business Analyst
- IT Network Specialist
- IT Security Specialist
- IT Software Developer
- Microsoft System Administrator





## SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
10103106	Microsoft Office-Introduction	3
10150110	Networking I	3
10151105	Linux	3
10154102	Hardware Essentials	3
10801136	English Composition 1	3
Term		15 credits
10150120	Server Administration-Beginning	3
10150165	Network Server Scripting	3
10151110	Information Security 1	3
10154110	Desktop Management	3
10801196	Oral/Interpersonal Communication -or-	
10801198	Speech	3
Term		15-16 credits
10154120	Advanced Desktop Management	3
10154132	Help Desk Fundamentals	3
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
10809103	Think Critically & Creatively	3
10809188	Developmental Psychology -or-	
10809198	Intro to Psychology	3
Term		15 credits
10102130	Career Development -or-	
10154141	Computer Support Internship -or-	
10801199	Employment Strategies	3
10150111	Networking II -or-	
10151111	Information Security 2 -or-	
10156101	Database Concepts and Design	3
10154142	Computer Support Capstone	3
10801197	Technical Reporting	3
10809166	Intro to Ethics: Theory & Application	3
<b>Total credits 60-61</b>		

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		9 credits
10151105	Linux	3
10154102	Hardware Essentials	3
10801136	English Composition 1	3
Term		6 credits
10150120	Server Administration-Beginning	3
10801196	Oral/Interpersonal Communication -or-	
10801198	Speech	3
Term		6 credits
10103106	Microsoft Office-Introduction	3
10150110	Networking I	3
Term		9 credits
10150165	Network Server Scripting	3
10151110	Information Security 1	3
10154110	Desktop Management	3
Term		9-10 credits
10154132	Help Desk Fundamentals	3
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
10809188	Developmental Psychology -or-	
10809198	Intro to Psychology	3
Term		9 credits
10150111	Networking II -or-	
10151111	Information Security 2 -or-	
10156101	Database Concepts and Design	3
10154142	Computer Support Capstone	3
10801197	Technical Reporting	3
Term		6 credits
10154120	Advanced Desktop Management	3
10809103	Think Critically & Creatively	3
Term		6 credits
10102130	Career Development -or-	
10154141	Computer Support Internship -or-	
10801199	Employment Strategies	3
10809166	Intro to Ethics: Theory & Application	3
<b>Total credits 60-61</b>		

## Advanced Desktop Management

**10154120 .....3 credits**

Provides students with the background needed to build the knowledge and skills to support end users and computers running the Microsoft suite of productivity applications. Focuses on the skills needed to work in a variety of environments, including corporate environments as well as phone support for home users, remote support, and retail counter support.

*Prerequisite: Desktop Management 10154110*

## Career Development

**10102130 .....3 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

**10804107 .....3 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.*

## Computer Support Capstone

**10154142 .....3 credits**

In this capstone course students complete a project that incorporates 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.

*Prerequisite: Help Desk Fundamentals 10154132 and Advanced Desktop Management 10154120*

## Computer Support Internship

**10154141 .....3 credits**

Integrates skills developed in classroom study with specific occupational experiences at local employment sites and develops work behavior appropriate to the business environment.

*Prerequisite: Help Desk Fundamentals 10154132*

## Database Concepts and Design

**10156101 .....3 credits**

Introduces the concepts of relational database design, development, and maintenance. Topics include relational normalization, referential integrity, and SQL.

*Corequisite: English Composition 1 10801136*

## Desktop Management

**10154110 .....3 credits**

Introduces students to the skills needed to support client PC Operating Systems. Through significant hands-on activities, students learn how to configure, secure, use, and troubleshoot client operating systems.

*Corequisite: English Composition 1 10801136*

## 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.*

## Employment Strategies

**10801199 .....3 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

**10801136 .....3 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

**10154102 .....3 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

**10151110 .....3 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*

## Information Security 2

**10151111.....3 credits**

Introduces students to intrusion detection tools, network security design, various types of network firewalls, and the basics of VPN configuration. A solid understanding of LAN/WAN fundamentals is required for this course.

*Prerequisite: Information Security 1 10151110*

## 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

**10809166 .....3 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 Psychology

**10809198 .....3 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.*

## Linux

**10151105 .....3 credits**

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

*Corequisite: Hardware Essentials 10154102*

## Microsoft Office-Introduction

**10103106 .....3 credits**

Develops introductory skills in the Microsoft Office Suite (Word, Excel, Access, PowerPoint, and Outlook) while reinforcing the students' knowledge of computer concepts, Windows Explorer, and web usage. Students should possess basic keyboarding, mouse and Windows 10 skills. Students may develop these skills in the LINK while concurrently enrolled in this course.

## Network Server Scripting

**10150165 .....3 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*

## 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 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 I 10801136*

## Networking II

**10150111 .....3 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*

## 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 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

**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: Hardware Essentials 10154102*

## 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. 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.*

## Technical Reporting

**10801197 .....3 credits**

The student prepares and presents oral and written technical reports. Types of reports may include lab and field reports, proposals, technical letters and memos, technical research reports, and case studies. Designed as an advanced communication course for students who have completed at least the prerequisite introductory writing course.

*Prerequisite: English Composition I 10801136 with a grade of "C" or better or Written Communication 10801195 with a grade of "C" or better. Proficiency in word processing skills recommended.*

## Think Critically & Creatively

**10809103 .....3 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.*



# 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](http://mstc.edu/programcosts)

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- Financial Aid Form(s)  
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Mid-State Technical College  
Student Services Assistant  
1001 Centerpoint Drive  
Stevens Point, WI 54481
- Other: \_\_\_\_\_  
\_\_\_\_\_

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**888.575.6782**



**MID-STATE**  
TECHNICAL COLLEGE

**ADAMS CAMPUS**  
401 North Main  
Adams, WI 53910

**MARSHFIELD CAMPUS**  
2600 West 5th Street  
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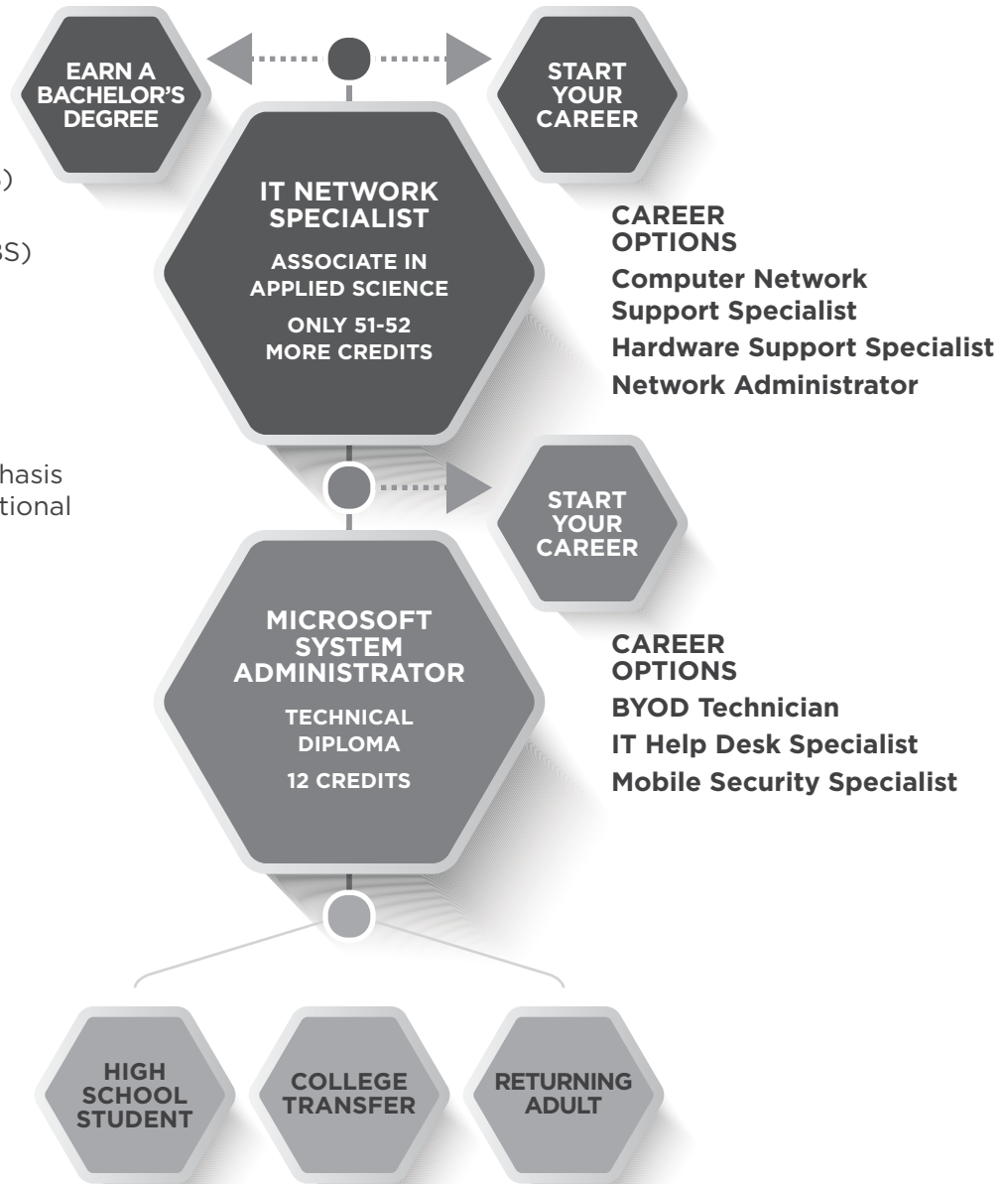
**STEVENS POINT CAMPUS**  
1001 Centerpoint Drive  
Stevens Point, WI 54481

**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](http://mstc.edu/transfer).**



**College Credit • Dual Credit • Military Experience • Work Experience**  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

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

Please Note:

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## SAMPLE PART-TIME CURRICULUM OPTION

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



## Advanced Networking Projects

**10150161 .....3 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

**10102130 .....3 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

**10804107 .....3 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

**10809195 .....3 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

**10801199 .....3 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

**10801136 .....3 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

**10154102 .....3 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

**10151110 .....3 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

**10809166 .....3 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

**10152101 .....3 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

**10809198 .....3 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

**10804189 .....3 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

**10151105 .....3 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

**10150165 .....3 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

**10150142 .....3 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

**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 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

**10150111 .....3 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

### 10150112 .....3 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

### 10150113 .....3 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

### 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 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

### 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: Hardware Essentials 10154102*

## Server Administration-Intermediate

### 10150121 .....3 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

### 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. 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

### 10809103 .....3 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

### 10150130 .....3 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*



# it security specialist

## Associate in Applied Science (AAS) Program Code: 10-151-3 Total Credits: 60-61

Graduates of this program understand the security measures needed to safeguard an organization's electronic files and computer networking infrastructure. Students will be involved in planning, implementing, and monitoring information technology security systems. Through hands-on projects, you will learn ethical hacking techniques in order to fully understand network vulnerabilities. You will also learn effective ways to implement intrusion detection systems to mitigate security risks. Includes demonstration of the use of computer forensics to help track down and stop potential information security breaches.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

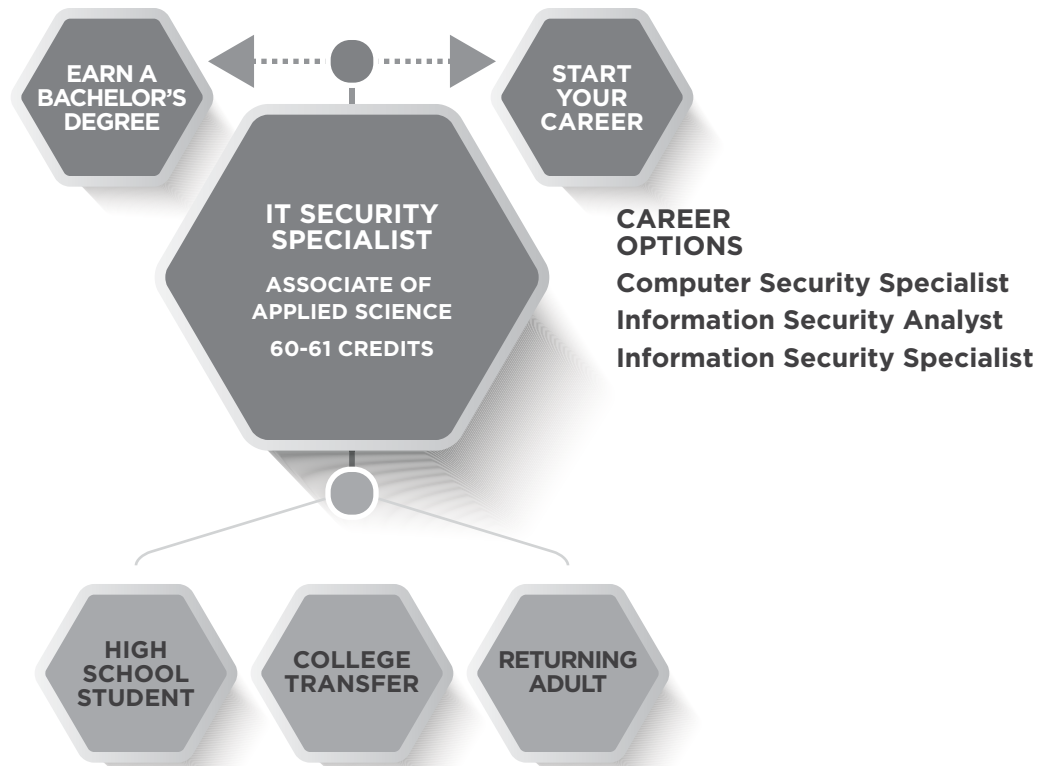
**STEVENS POINT CAMPUS**  
1001 Centerpoint Drive  
Stevens Point, WI 54481

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

## BACHELOR'S DEGREE OPTIONS

Lakeland University,  
Computer Science (BA)

For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).



College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Business Analyst
- IT Computer Support Specialist
- IT Network Specialist
- IT Software Developer
- Microsoft System Administrator



## 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 1	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
Term		15-16 credits
10150112	Networking III	3
10151111	Information Security 2	3
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
10809103	Think Critically & Creatively	3
10809166	Intro to Ethics: Theory & Application	3
Term		15 credits
10102130	Career Development <b>-or-</b>	
10151141	IT-Security Internship <b>-or-</b>	
10801199	Employment Strategies	3
10151112	Information Security 3	3
10151160	Ethical Hacking	3
10151161	IT Security Capstone	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3
<b>Total credits 60-61</b>		

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](http://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
10150120	Server Administration-Beginning	3
10151110	Information Security 1	3
Term		6 credits
10801136	English Composition 1	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
Term		9 credits
10152101	Intro to Programming	3
10150112	Networking III	3
10151111	Information Security 2	3
Term		6 credits
10809103	Think Critically & Creatively	3
10150165	Network Server Scripting	3
Term		6-7 credits
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
10809166	Intro to Ethics: Theory & Application	3
Term		6 credits
10102130	Career Development <b>-or-</b>	
10151141	IT-Security Internship <b>-or-</b>	
10801199	Employment Strategies	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3
Term		9 credits
10151112	Information Security 3	3
10151160	Ethical Hacking	3
10151161	IT Security Capstone	3
<b>Total credits 60-61</b>		

## Career Development

### 10102130 .....3 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

### 10804107 .....3 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.*

## Employment Strategies

### 10801199 .....3 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

### 10801136 .....3 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.*

## Ethical Hacking

### 10151160 .....3 credits

Introduces the techniques hackers use to discover vulnerabilities. Students will learn ways to tighten the network security to protect the exposed data from the discovered vulnerabilities. Focus is on penetration-testing tools and techniques that security testers and ethical hackers use to protect computer networks.

*Prerequisite: Information Security 2 10151111; Corequisite: Information Security 3 10151112*

## Hardware Essentials

### 10154102 .....3 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*

## Information Security 1

### 10151110 .....3 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*



## Information Security 2

**1015111 .....3 credits**

Introduces students to intrusion detection tools, network security design, various types of network firewalls, and the basics of VPN configuration. A solid understanding of LAN/WAN fundamentals is required for this course.

*Prerequisite: Information Security 1 1015110*

## Information Security 3

**1015112 .....3 credits**

This course explores security incidents and intrusions, including identifying and categorizing incidents. Students will be responding to incidents, and analyzing logs and network traffic. Additionally, students will be utilizing various tools and creating an incident response team.

*Prerequisite: Information Security 2 1015111*

## Intermediate Algebra with Applications

**1080418 ..... 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

**10809166 .....3 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

**10152101 .....3 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

**10809198 .....3 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.*

## IT Security Capstone

**10151161 .....3 credits**

In this capstone course students complete a project that incorporates 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.

*Prerequisite: Information Security 2 1015111; Corequisite: Information Security 3 1015112*

## IT-Security Internship

**10151141 .....3 credits**

Integrates skills developed in classroom study with specific occupational experiences at local employment sites and develops work behavior appropriate to the business environment.

*Prerequisite: Networking III 10150112*

## Linux

**10151105 .....3 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

**10150165 .....3 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*

## 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 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

**10150111.....3 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

**10150112.....3 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*

## 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 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

**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: Hardware Essentials 10154102*

## 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. 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

**10809103.....3 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.*



# it software developer

## Associate in Applied Science (AAS) Program Code: 10-152-1 Total Credits: 63-64

Graduates of Mid-State's IT Software Developer program have the skills needed to design, develop, and maintain software and software systems on a wide variety of computing devices and to meet the spectrum of business needs. You'll learn to create software to run on all platforms including network servers, desktop workstations, web pages, and Android and iOS mobile devices. You will use state-of-the-art equipment and work in teams to design, develop, test, and implement small-scale software systems for nonprofit organizations or simulated clients.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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: \_\_\_\_\_  
\_\_\_\_\_

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

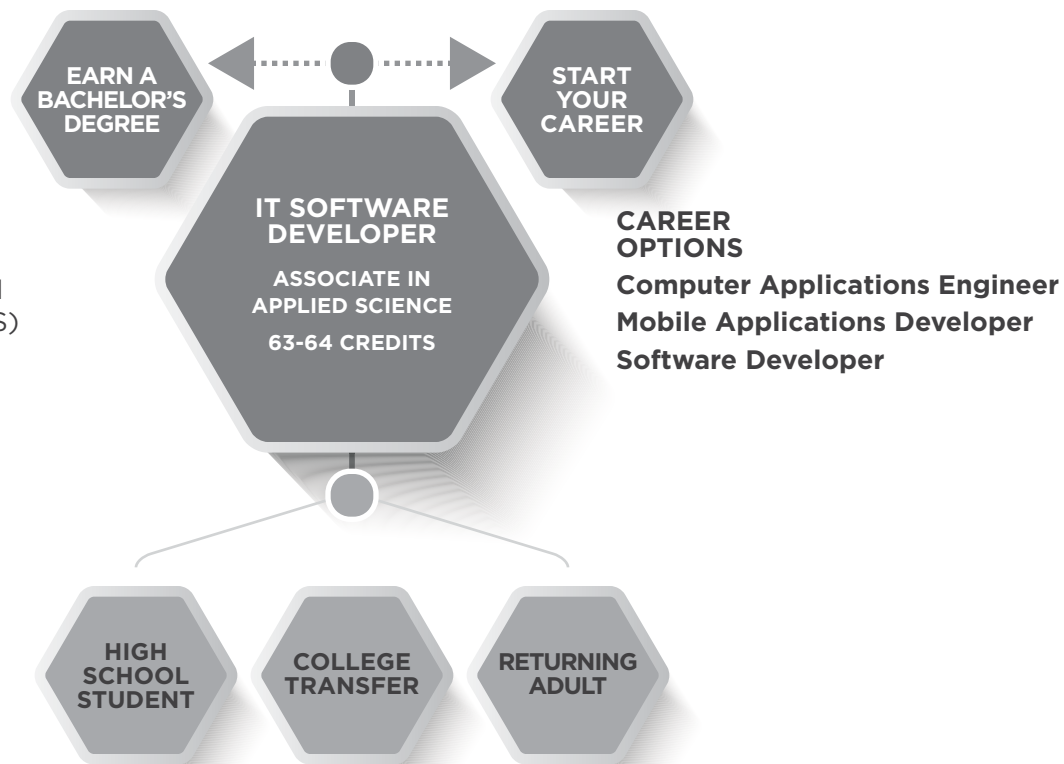
**WISCONSIN RAPIDS CAMPUS**  
500 32nd Street North  
Wisconsin Rapids, WI 54494

## BACHELOR'S DEGREE OPTIONS

Lakeland University,  
Computer Science (BA)

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

**For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).**



College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Business Analyst
- IT Computer Support Specialist
- IT Network Specialist
- IT Security Specialist
- Microsoft System Administrator

### APPRENTICESHIP OPPORTUNITIES

- IT Software Developer Apprenticeship



**SAMPLE FULL-TIME CURRICULUM OPTION**

<b>Term</b>		<b>15-16 credits</b>
10152101	Intro to Programming	3
10152121	Object-Oriented Programming 1	3
10152150	Web Design 1	3
10801136	English Composition 1	3
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
	<b>-or-</b>	
10804189	Introductory Statistics	3
<b>Term</b>		<b>15 credits</b>
10152122	Object-Oriented Programming 2	3
10152159	User Experience Design	3
10152174	Collaborative Application Development	3
10156101	Database Concepts and Design	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
<b>Term</b>		<b>18 credits</b>
10150110	Networking I	3
10152123	Object-Oriented Programming 3	3
10152155	Web Programming 1	3
10152160	Introductory Mobile Application Development	3
10152175	Software Architecture	3
10156102	SQL Development	3
<b>Term</b>		<b>15 credits</b>
10102130	Career Development <b>-or-</b>	
10152161	Intermediate Mobile Application Development <b>-or-</b>	
10152177	Software Developer Internship <b>-or-</b>	
10801199	Employment Strategies	3
10152158	Web Programming 2	3
10152176	Application Development Capstone	3
10809166	Intro to Ethics: Theory & Application	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3
<b>Total credits 63-64</b>		

## 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](http://mstc.edu/classfinder).

**SAMPLE PART-TIME CURRICULUM OPTION**

<b>Term</b>		<b>9 credits</b>
10152101	Intro to Programming	3
10152121	Object-Oriented Programming 1	3
10152150	Web Design 1	3
<b>Term</b>		<b>9 credits</b>
10152122	Object-Oriented Programming 2	3
10152174	Collaborative Application Development	3
10156101	Database Concepts and Design	3
<b>Term</b>		<b>6-7 credits</b>
10801136	English Composition 1	3
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
	<b>-or-</b>	
10804189	Introductory Statistics	3
<b>Term</b>		<b>9 credits</b>
10152123	Object-Oriented Programming 3	3
10152155	Web Programming 1	3
10156102	SQL Development	3
<b>Term</b>		<b>9 credits</b>
10150110	Networking I	3
10152158	Web Programming 2	3
10152159	User Experience Design	3
<b>Term</b>		<b>6 credits</b>
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
10809166	Intro to Ethics: Theory & Application	3
<b>Term</b>		<b>9 credits</b>
10152160	Introductory Mobile Application Development	3
10152175	Software Architecture	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3
<b>Term</b>		<b>6 credits</b>
10102130	Career Development <b>-or-</b>	
10152161	Intermediate Mobile Application Development <b>-or-</b>	
10152177	Software Developer Internship <b>-or-</b>	
10801199	Employment Strategies	3
10152176	Application Development Capstone	3
<b>Total credits 63-64</b>		

## Application Development Capstone

**10152176** .....3 credits

This course is the culmination of all prior coursework. Learners form small teams, each identifying, designing, and implementing an attractive and usable software application. Project teams each use Agile software development principles to manage their projects, communicate project status, adapt to changing requirements, and overcome technical challenges. Students will choose the technology they wish to use in developing their application, and will leverage the Atlassian suite of products to manage their project. Additional topics include a review of the Agile software development methodology.

*Prerequisites: Software Architecture 10152175, Web Programming 1 10152155, SQL Development 10156102, Object-Oriented Programming 3 10152123, and Introductory Mobile Application Development 10152160*

## Career Development

**10102130** .....3 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.

## Collaborative Application Development

**10152174** .....3 credits

Introduces the Agile software, development methodology, and applies it to managing a software development project. Learners will work in small teams, taking an application through its entire lifecycle including the phases of requirements gathering, analysis, design, development, testing, deployment, and maintenance. Additional topics include an introduction to the following disciplines and related tools: team rules, peer and code reviews, pair programming, stakeholder communication, client meeting planning, project management, version control, issue tracking, unit/regression testing, software licensing, and automated build/deployment.

*Prerequisites: Web Design 1 10152150 and Intro to Programming 10152101; Corequisite: Speech 10801198*

## College Mathematics

**10804107** .....3 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.*

## Database Concepts and Design

**10156101** .....3 credits

Introduces the concepts of relational database design, development, and maintenance. Topics include relational normalization, referential integrity, and Structured Query Language (SQL).

*Corequisite: English Composition 1 10801136*

## 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.*

## Employment Strategies

**10801199** .....3 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

**10801136 .....3 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.*

## 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.*

## Intermediate Mobile Application Development

**10152161 .....3 credits**

Provides instruction in developing software applications for mobile devices building upon the knowledge gained in Introductory Mobile Application Development.

*Prerequisite: Introductory Mobile Application Development 10152160*

## Intro to Ethics: Theory & Application

**10809166 .....3 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

**10152101 .....3 credits**

Applies the basic concepts of computer programming having learners build JavaScript 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) and mathematical calculations.

*Corequisite: English Composition 1 10801136*

## Intro to Psychology

**10809198 .....3 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 Mobile Application Development

**10152160 .....3 credits**

Provides instruction in developing software applications for mobile devices using the Microsoft Visual Studio and Xamarin.

*Prerequisite: Object-Oriented Programming 2 10152122, Collaborative Application Development 10152174, and Database Concepts and Design 10156101 or consent of instructor*

## Introductory Statistics

**10804189 .....3 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.*

## 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 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*



## Object-Oriented Programming 1

**110152121.....3 credits**

Introduces object-oriented programming and design, with a focus on building the conceptual framework necessary to understand and build object-oriented programs. This course uses C# .NET, and the Unified Modeling Language (UML), to present concepts from a variety of perspectives. Learners will create UML diagrams and write/debug C# .NET applications, applying the object-oriented basics of abstraction, encapsulation, inheritance and polymorphism. Additional topics include: object instantiation/lifetime/scope, methods, properties, visibility modifiers and collections/multiplicity.

*Corequisites: Intro to Programming 10152101 and College Math 10804107*

## Object-Oriented Programming 2

**10152122.....3 credits**

Builds upon the object-oriented concepts learned in Object-Oriented Programming 1, continuing with an in-depth application of object-oriented SOLID design principles and patterns, including: don't repeat yourself, principle of least knowledge, single responsibility, factory patterns, strategy pattern, and others. Additional topics include delegates, iterators, sorting and data structures.

*Prerequisite: Object-Oriented Programming 1 10152121*

## Object-Oriented Programming 3

**10152123.....3 credits**

Builds upon the object-oriented concepts learned in earlier OOP courses. Learners will spend time building JAVA applications and describing many of the common OOP design patterns they are utilizing, including: factory, strategy, observer, decorator, state, singleton, adapter, facade, command, and more.

*Prerequisite: Object-Oriented Programming 2 10152122*

## 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 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.*

## Software Architecture

**10152175.....3 credits**

Introduces N-tier software architecture through the exploration of various data access methodologies. Learners will work in Agile teams to create a C# .NET application comprised of data access, business and presentation layers using MVVM architecture. The application will access data from Microsoft SQL Server using a variety of object-relational mapping (ORM) frameworks. Additional development topics include ADO.NET, LINQ, Entity Framework and object-oriented databases. Additional team dynamics topics include communication and written tone, resolving team conflicts, team accountability, and client communication during requirements gathering, and peer evaluations.

*Prerequisites: Collaborative Application Development 10152174, Object-Oriented Programming 2 10152122, and Database Concepts and Design 10152156*

## Software Developer Internship

**10152177.....3 credits**

Integrates software development skills 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 18 credits in IT Software Developer courses or consent of instructor*

## 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. 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.*

## SQL Development

**10156102.....3 credits**

Expands on Database Concepts and Design, with advanced SQL syntax (indexes, views, stored procedures, and triggers), database design, and data transformation. Additional topics include alternate database technologies, data warehousing, emerging database trends, and database administration and security.

*Prerequisites: Database Concepts and Design 10156101 and Introduction to Programming 10152101*

## User Experience Design

**10152159.....3 credits**

Examines the design, prototyping, and evaluation of user interfaces. Learners will apply user experience standards in the development of web and software interfaces to provide a quality user experience. Topics include psychological and interaction principles (including ADA and international standards), requirements analysis, designing for different devices, style guides, usability testing, and visual design principles.

*Prerequisite: Web Design 1 10152150*

## Web Design 1

**10152150 .....3 credits**

Introduces HTML and Cascading Style Sheets (CSS) coding techniques. Learners will create/modify web pages using HTML tags and style the web pages with CSS and JavaScript. For the final course project, learners will create a personal website portfolio. Additional topics include copyright considerations, text editors, image optimization, FTP utilities, and browser tools.

*Corequisite: English Composition 1 10801136*

## Web Programming 1

**10152155.....3 credits**

Using php to develop web applications with server-side components, the student creates and demonstrates data connectivity to the web. Additional tools may include elements of the following languages/technologies: HTML, CSS, JavaScript, jQuery, SQL, and bootstrap. Students write applications that retrieve data from a database for display to the web browser and capture data for storage from a web form. Additional topics include Object-Oriented and MVC.

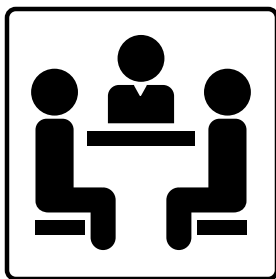
*Prerequisites: Web Design 1 10152150, Intro to Programming 10152101, Database Concepts and Design 10156101, and Object-Oriented Programming 1 10152121*

## Web Programming 2

**10152158.....3 credits**

Builds on Web Programming 1. Discuss more advanced JavaScript topics including Angular, callbacks, and chaining. Introduce NOSQL using Mongo. Additional topics include type script, imports/exports, templates, binding, form controls, and minimal discussion of other frameworks.

*Prerequisites: Web Programming 1 10152155*



# leadership development

## Associate in Applied Science (AAS) Program Code: 10-196-1 Total Credits: 60

Designed for individuals currently employed and working closely with their employer on skill development, Mid-State's Leadership Development program prepares students for success in effectively managing processes and inspiring a diverse workforce. In this program you'll develop the technical and interpersonal skills needed to lead the operations of a business including helping organizations adapt to change, encouraging innovation, displaying a variety of effective leadership skills, demonstrating critical-thinking skills, and using communication skills appropriate in a professional and collaborative environment. You'll grow your skills in planning, finance, team building, leadership, safety, project management, decision making, talent development, supervision, innovation, and the use of software. Every course directly applies learning to the student's real-world work environment through various projects. As a graduate of the Leadership Development associate degree, you'll be prepared for leadership roles in any organization.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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: \_\_\_\_\_  
\_\_\_\_\_

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**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

For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).



College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Administrative Professional
- Business Management
- Customer Relationship Professional
- Entrepreneurship
- Human Resources Assistant
- Office Support Specialist





## College Mathematics

### 10804107 .....3 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.*

## Conflict Resolution

### 10196135.....3 credits

Students will apply different conflict resolution techniques that can be used by a manager or leader within an organization given real-world scenarios. Students will also evaluate the importance of consultation, team building, trust, and win-win outcomes from a managerial standpoint in the resolution of organizational conflict.

## Continuous Improvement

### 10102214 .....3 credits

Emphasizes using data to make sound business decisions. Students gain exposure to various tools used to assemble, organize, and manage data sets. Students further refine their skills in requirements documentation and validation by tracing and prioritizing solution requirements. Students also identify, measure, and validate solution requirements to support organizational change while complying with organizational standards.

*Prerequisite: Business Analyst Essentials 10102210 or admission to Leadership Development Program 101961*

## English Composition 1

### 10801136 .....3 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.*

## Finance and Budgeting

### 10102121 .....3 credits

For the nonfinancial manager, this course introduces the language of accounting, finance, and budgeting. Provides an overview of the use and analysis of financial statements. Business planning and the foundations and development of budgets are explored. Business financing basics and the securing of necessary financing for a business are covered. Practical application of financial statement creation and analysis, budgetary activities, and finance calculations are included.

## Intro to Ethics: Theory & Application

### 10809166 .....3 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 Psychology

### 10809198 .....3 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.*

## Introduction to Diversity Studies

### 10809172.....3 credits

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored.

*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.*

## Leadership Development

### 10196190 .....3 credits

Applies skills and tools necessary to fulfill his/her role as a modern leader. Each learner evaluates personal leadership effectiveness, use individual and group motivation strategies, implement mission and goals, demonstrate ethical behavior, adapt personal leadership style to worker readiness, use power, facilitate employee development, coach, manage change, and resolve conflict.

## Lean Six Sigma

**10623171.....3 credits**

Learners will examine two models of problem solving/continuous improvement (the PDCA/PDSA and the DMAIC models). Learners will utilize an A3 report to identify the current process condition, identify improvement goals, establish root causes, specify improvement activities, and confirm results. Learners will utilize the seven SPC (Statistical Process Control) tools and selected Quality Management Tools in the improvement process. Learners will examine the steps of planning and executing a Kaizen Event as well as supporting daily Kaizen activities.

*Prerequisite: Admission to Manufacturing Operations Management program 101965 or Leadership Development program 101961*

## Managing for Quality

**10196192.....3 credits**

Apply skills and tools necessary to implement and maintain a continuous improvement environment. Each learner will demonstrate the application of a personal philosophy of quality, identify stakeholder relationships, identify ways to meet/exceed customer expectations, apply a systems-focused approach, use quality models and tools, manage a quality improvement project, and measure effectiveness of continuous improvement activities.

## Managing Risk & Safety

**10196136 .....3 credits**

This course is designed for students to understand the basics concepts of risk assessment, risk mitigation, workplace hazards, and safety practices. Students will examine personal, physical, environmental, and virtual safety policies and practices as part of this course.

## Mental Wellness and Stress Management

**10546110 .....3 credits**

Investigate the underpinnings of mental health and wellness. Explore the risks of stress and emotional management techniques to mitigate these risks by embracing a growth mindset. The learner will be engaged in processes to support the emotional dimension of health and demonstrate ways to implement these practices for oneself and others along their wellness journey.

## Microsoft Office-Introduction

**10103106 .....3 credits**

Develops introductory skills in the Microsoft Office Suite (Word, Excel, Access, PowerPoint, and Outlook) while reinforcing the students' knowledge of computer concepts, Windows Explorer, and web usage. Students should possess basic keyboarding, mouse, and Windows 10 skills. Students may develop these skills in the LiNK while concurrently enrolled in this course.

## 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 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.*

## Project Management

**10196188.....3 credits**

Applies skills and tools necessary to design, implement, and evaluate formal projects. Each learner writes a project proposal, works with project teams, sequences project tasks, develops project budgets, identifies project resources, implements the project, charts project progress, deals with variations, evaluates the project, and uses various technology in these processes.

## Supervision

**10196191 .....3 credits**

Applies skills and tools necessary to perform the functions of a contemporary frontline leader. Students engage in operational planning, analyze organizational structures, review the staffing process, employ techniques to enhance employee personal and group effectiveness, and develop control techniques to measure effectiveness in the above areas.

## Team Building & Problem Solving

**10196189 .....3 credits**

Applies skills and tools necessary to facilitate problem solving in a team environment. Each learner assumes the roles and responsibilities of team leadership in the stages of team development, uses a systematic problem-solving process, and employs consensus-building and conflict-management strategies.

## Training & Talent Development

**10196138.....3 credits**

Students will explore the building blocks used to manage the performance of individuals, teams, and total organizations.

## Workplace Innovation

**10196139.....3 credits**

This capstone course is designed to inspire innate creativity to help launch major projects or untangle difficult situations. It focuses on providing fresh insight and new perspective on even the most routine elements of any job and to view problem solving as a creative opportunity. Students will tackle real-world workplace issues and learn to create innovative and workable solutions for the good of the organization.

*Corequisites: Managing Risk & Safety 10196136, Lean Six Sigma 10623171, and Training & Talent Development 10196138*





# liberal arts-associate of arts

## Associate of Arts (AA) Program Code: 20-800-1 Total Credits: 60

Students in the Liberal Arts-Associate of Arts (University Transfer) program take courses to meet the general requirements of a four-year degree, just like at a four-year campus. Through inquiry, observation, and analysis, students gain knowledge and skills in the arts and sciences, which enable them to broaden their perspective, increase problem-solving skills, and express themselves effectively in both writing and speaking. Students take courses within a core curriculum, with an emphasis on social sciences and humanities.

The Liberal Arts-Associate of Arts program is a special partnership with Nicolet College. Students will receive all the cost savings and the convenience of a complete liberal arts transfer degree while taking classes at a Mid-State Technical College campus, online, or via TelePresence.

Students complete coursework at Mid-State and graduate with a Nicolet Liberal Arts-Associate of Arts degree.

Students who complete an associate degree often have the benefit of a degree-to-degree transfer, where universities grant junior status and automatically waive specific lower-division requirements, such as general degree requirements, regardless of individual courses taken at Mid-State Technical College.

### ACADEMIC ADVISOR

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Nicolet College FAFSA Code 008919
- Official Transcripts  
Mid-State Technical College  
Student Services Assistant  
1001 Centerpoint Drive  
Stevens Point, WI 54481
- Follow-Up Appointment:  
Where: \_\_\_\_\_  
When: \_\_\_\_\_  
With: \_\_\_\_\_
- Other: \_\_\_\_\_  
\_\_\_\_\_

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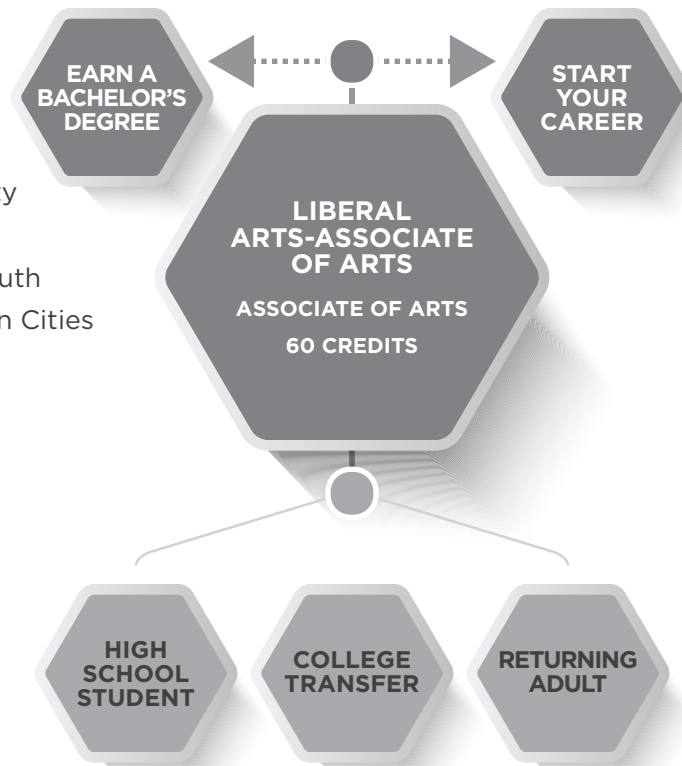
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## BACHELOR'S DEGREE OPTIONS

Edgewood College  
Northern Michigan University  
Northland College  
University of Minnesota-Duluth  
University of Minnesota-Twin Cities  
UW-Eau Claire  
UW-Green Bay  
UW-LaCrosse  
UW-Milwaukee  
UW-Madison  
UW-Oshkosh  
UW-Parkside  
UW-Platteville  
UW-River Falls  
UW-Stevens Point  
UW-Stout  
UW-Superior  
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## OTHER OPTIONS

### RELATED PROGRAMS

- Liberal Arts-Associate of Science





## ALL COURSES FOR LIBERAL ARTS

### Mid-State Technical College Courses:

#### Communication

- 10801136 English Composition 1
- 10801198 Speech

#### Mathematics & Natural Science

- 10804118 Intermediate Algebra with Applications
- 10804189 Introductory Statistics
- 10804195 College Algebra with Applications
- 10804196 Trigonometry with Applications
- 10806134 General Chemistry
- 10806154 General Physics 1
- 10806177 General Anatomy & Physiology
- 10806179 Advanced Anatomy & Physiology
- 10806197 Microbiology

#### Social Science

- 10809103 Think Critically & Creatively
- 10809122 Intro to American Government\*\*
- 10809166 Introduction to Ethics: Theory & Application\*\*
- 10809172 Introduction to Diversity Studies\*\*\*
- 10809188 Developmental Psychology
- 10809195 Economics
- 10809196 Intro to Sociology\*\*\*
- 10809198 Intro to Psychology

For more information, visit [mstc.edu/programs/liberal-arts-arts](http://mstc.edu/programs/liberal-arts-arts)

### Nicolet College Courses:

#### English and Literature

- 20810201 Fundamentals of Speech
- 20801219 English Composition I
- 20801223 English Composition II
- 20801227 Creative Writing
- 20801233 Children's Literature

#### Mathematics and Natural Science

- 20804227 Elementary Math Education I
- 20804237 Elementary Math Education II
- 20804230 Statistics
- 20806211 Intro to Soil and Water Resources
- 20806212 Geographic Information Systems
- 20806215 Environmental Science
- 20806240 Survey of Chemistry

#### Humanities

- 20803215 History of American People to 1877
- 20803219 History of American People from 1877
- 20809217 Intro to Philosophy
- 20809225 Ethics
- 20801243 American Literature Colonial to 1865
- 20801255 Intro to Literature
- 20803258 World History to 1500\*
- 20803259 World History since 1500\*
- 20815201 Art Appreciation
- 20805201 Music Appreciation
- 20805280 Music in Film

#### Social Science

- 20809251 Introduction to Psychology
- 20809252 Developmental Psychology
- 20809254 Educational Psychology
- 20809271 Introductory Sociology\*
- 20809275 Marriage and Family
- 20809287 Principles of Macroeconomics
- 20809291 Principles of Microeconomics

#### Health/Wellness/PE

- 20807201 Fitness for Life

#### World Language

- 20802217 Spanish I\*

For more information, visit [nicoletcollege.edu/classes-programs/university-transfer/associate-arts](http://nicoletcollege.edu/classes-programs/university-transfer/associate-arts)

\*Course meets the Diversity and Ethnic Studies requirement

\*\*Course meets the Humanities requirement

\*\*\*Course meets the Social Science requirement

#### Please Note:

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- Graduation requirement of a 2.0 cumulative GPA.
- Electives are selected from courses not used to fulfill other requirements.



# liberal arts-associate of science

## Associate of Science (AS) Program Code: 20-800-2 Total Credits: 60

Students in the Liberal Arts-Associate of Science (University Transfer) program take courses to meet the general requirements of a four-year degree, just like at a four-year campus. Through inquiry, observation, and analysis, students gain knowledge and skills in the arts and sciences, which enable them to broaden their perspective, increase problem-solving skills, and express themselves effectively in both writing and speaking. Students take courses within a core curriculum, with an emphasis on science and mathematics.

The Liberal Arts-Associate of Science program is a special partnership with Nicolet College. Students will receive all the cost savings and the convenience of a complete liberal arts transfer degree while taking classes at a Mid-State Technical College campus, online, or via TelePresence.

Students complete coursework at Mid-State and graduate with a Nicolet Liberal Arts-Associate of Science degree.

Students who complete an associate degree often have the benefit of a degree-to-degree transfer, where universities grant junior status and automatically waive specific lower-division requirements, such as general degree requirements, regardless of individual courses taken at Mid-State Technical College.

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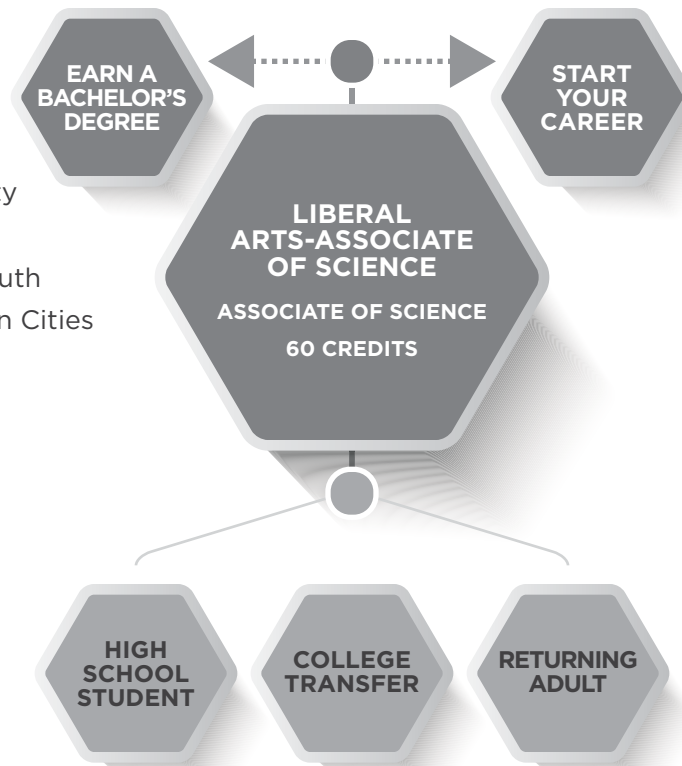
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UW-Madison  
UW-Oshkosh  
UW-Parkside  
UW-Platteville  
UW-River Falls  
UW-Stevens Point  
UW-Stout  
UW-Superior  
UW-Whitewater



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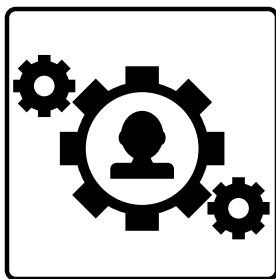
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- Graduation requirement of a 2.0 cumulative GPA.
- Electives are selected from courses not used to fulfill other requirements.



# machine tool technician

## Technical Diploma

**Program Code: 32-420-1**

**Total Credits: 54**

The Machine Tool Technician program prepares graduates for machining positions, an in-demand skill set at the heart of industrial production. Additional training and experience often lead to supervisory, quality assurance, and tool maker positions. In this program you will learn to shape various materials into intricate, precise, usable parts. You'll also work from blueprints and written specifications to select the proper machinery, materials, and tools, and you'll gain proficiency with machine tools such as lathes, mills, grinders, computers, and computerized numerical control (CNC) machines.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://mstc.edu/programcosts)

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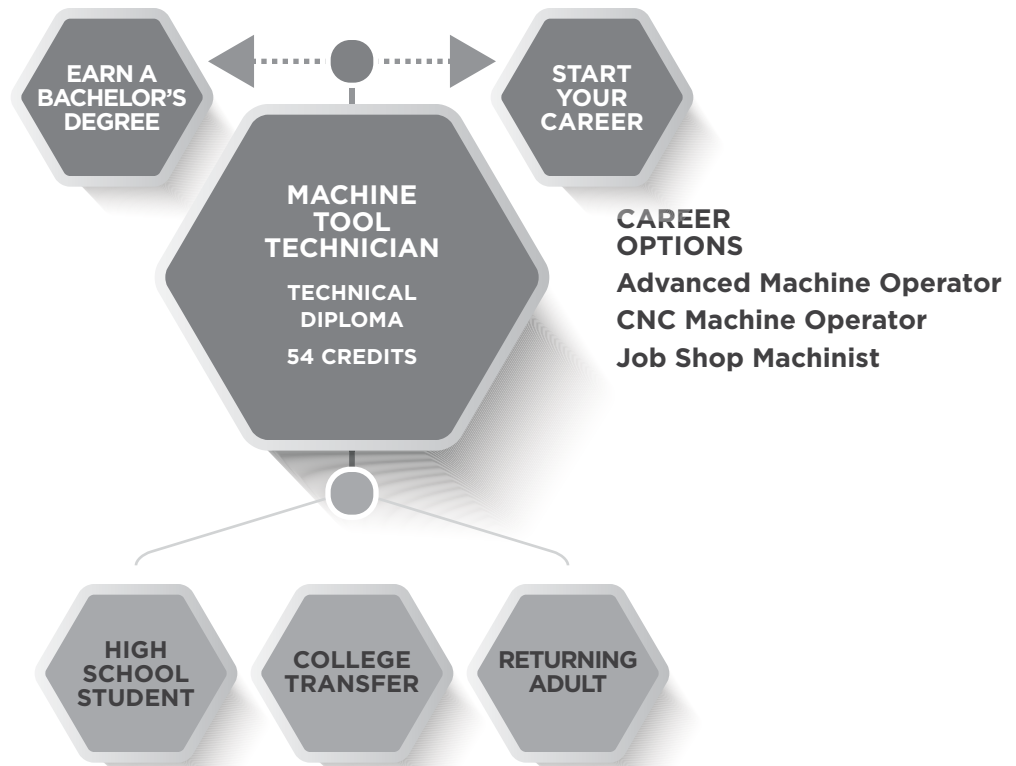
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## OTHER OPTIONS

### RELATED PROGRAMS

- Industrial Mechanical Technician
- Manufacturing Operations Management
- Stainless Steel Welding
- Welding

### APPRENTICESHIP OPPORTUNITIES

- Machinist Apprenticeship



## SAMPLE FULL-TIME CURRICULUM OPTION

<b>Term</b>		<b>14 credits</b>
10623116	Technical Drawing Interpretation	2
31804305	Applied Mathematics	2
32420326	Introduction to Turning Machines	2
32420327	Turning Machine Foundations	3
32420328	Precision Turning Machine Applications	3
32420362	CNC Lathes/Manual Programming	2

<b>Term</b>		<b>14 credits</b>
32420310	Introduction to Solid Modeling	2
32420312	Metals Science	2
32420337	Introduction to Milling Machines	2
32420338	Milling Machine Foundations	3
32420339	Precision Milling Machine Applications	3
32420364	CNC Mills/Manual Programming	2

<b>Term</b>		<b>13 credits</b>
10623112	Manufacturing Practices	2
10801199	Employment Strategies	3
32420325	Inspection with Geometric Dimensioning	2
32420335	Lathes-Advanced	2
32420373	CNC Lathes Set Up and Operation	2
32444377	CNC Lathes Computer Aided Programming	2

<b>Term</b>		<b>13 credits</b>
32420336	Mills-Advanced	2
32420374	CNC Mills Set Up and Operation	2
32420380	Multi-Axis Machining Processes	3
32444378	CNC Mills Computer Aided Programming	3
32444379	Advanced CNC Milling Operations	3

**Total credits 54**

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

<b>Term</b>		<b>6 credits</b>
10623116	Technical Drawing Interpretation	2
31804305	Applied Mathematics	2
32420326	Introduction to Turning Machines	2

<b>Term</b>		<b>6 credits</b>
32420310	Introduction to Solid Modeling	2
32420312	Metals Science	2
32420337	Introduction to Milling Machines	2

<b>Term</b>		<b>8 credits</b>
32420327	Turning Machine Foundations	3
32420328	Precision Turning Machine Applications	3
32420362	CNC Lathes/Manual Programming	2

<b>Term</b>		<b>8 credits</b>
32420338	Milling Machine Foundations	3
32420339	Precision Milling Machine Applications	3
32420364	CNC Mills/Manual Programming	2

<b>Term</b>		<b>7 credits</b>
10801199	Employment Strategies	3
32420325	Inspection with Geometric Dimensioning	2
32420335	Lathes-Advanced	2

<b>Term</b>		<b>7 credits</b>
32420336	Mills-Advanced	2
32420374	CNC Mills Set Up and Operation	2
32444378	CNC Mills Computer Aided Programming	3

<b>Term</b>		<b>6 credits</b>
10623112	Manufacturing Practices	2
32420373	CNC Lathes Set Up and Operation	2
32444377	CNC Lathes Computer Aided Programming	2

<b>Term</b>		<b>7 credits</b>
32420380	Multi-Axis Machining Processes	3
32444379	Advanced CNC Milling Operations	3

**Total credits 54**

# course descriptions

## Advanced CNC Milling Operations

**32444379 .....3 credits**

This course will utilize classroom presentations, discussions and hands-on lab activities to build on the skills from previous classroom experiences to equip learners to follow the entire process of manufacturing from print to part and through final inspection using CNC milling machines. Learners will explore in-process automated part inspection with the use of machine based probing systems. Additionally, students will become accustomed to the use of Wire EDM machines and Coordinate Measuring Machines as they progress through the course.

*Prerequisite: CNC Mills/Manual Programming 32420364*

## Applied Mathematics

**31804305 .....2 credits**

Students taking Applied Math I make and convert various measurements. Students use formulas to solve problems. They compute dimensions of geometric shapes. Students use statistical tools to represent and analyze data. They analyze various financial situations. Students use basic right triangle trigonometry to solve problems. In each topic area, students solve application problems.

## CNC Lathes Computer Aided Programming

**32444377 .....2 credits**

This course introduces learners to Computer-Aided Machining/Manufacturing (CAM). Demonstrations and hands-on use of CAD/CAM software and hardware will be used. Major emphasis is placed on geometry creation and editing functions, process planning, proper cutter selection, feed and speed selection, and tool path generation along with post processing to CNC lathes. Some basic machine set-up and operation are included to verify program operation.

*Prerequisite: Introduction to Solid Modeling 32420310*

## CNC Lathes Set Up and Operation

**32420373 .....2 credits**

In this introductory Computer Numerical Control (CNC) machining course, students will practice the skills needed to setup and operate CNC lathes. Classroom presentations and lab projects will focus on safety, theory, terminology as it relates to completing machine setups in the CNC lathe. Topics covered will be tool and work offset setting, work holding and quality. Learners will work with proven CNC part programs and setup documents to create parts to specifications and ensure all parts of a production run maintain quality throughout the run.

*Prerequisite: CNC Lathes/Manual Programming 32420362*

## CNC Lathes/Manual Programming

**32420362 .....2 credits**

Covers NC/CNC terminology and introduces students to computers and components of NC/CNC lathes. All programming is manual word address (G+M Code) basics. Includes basic CNC lathe operation.

## CNC Mills Computer Aided Programming

**32444378 .....3 credits**

This course introduces learners to Computer-Aided Machining/Manufacturing (CAM). Demonstrations and hands-on of CAD/CAM software and hardware will be used. Major emphasis is placed on geometry creation and editing functions, process planning, proper cutter selection, feed and speed selection, and tool path generation along with post processing to CNC milling machines and machining centers. Some basic machine set-up and operation are included to verify program operation.

*Prerequisite: Introduction to Solid Modeling 32420310*

## CNC Mills Set Up and Operation

**32420374 .....2 credits**

In this introductory Computer Numerical Control (CNC) machining course, students will practice the skills needed to setup and operate CNC milling machines. Classroom presentations and lab projects will focus on safety, theory, terminology as it relates to completing machine setups in the CNC milling machine. Topics covered will be tool and work offset setting, work holding and quality. Learners will work with proven CNC part programs and setup documents to create parts to specifications and ensure all parts of a production run maintain quality throughout the run.

*Prerequisite: CNC Mills/Manual Programming 32420364*

## CNC Mills/Manual Programming

**32420364 .....2 credits**

Covers NC/CNC terminology and introduces students to computers and components of NC/CNC mills. All programming is manual word address (G+M code) basics. Includes basic CNC mill operation.

## Employment Strategies

**10801199 .....3 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.

## Inspection with Geometric Dimensioning

**32420325 .....2 credits**

This course will familiarize learners with interpreting Geometric Dimensioning and introduce dimensional metrology. Activities and classroom presentations will provide insight into the use of direct and indirect measuring tools, instrument calibration, and the use of Coordinate Measuring Machines, and quality documentation. Emphasis of the course will be on interpretation of Geometric Dimensioning and using metrology fundamentals to ensure manufactured components meet design specifications.

## Introduction to Milling Machines

**32420337.....2 credits**

Explore the fundamentals of basic operations and safety of manual mills. Through the utilization of classroom and lab activities learners will acquire a basic understanding of the Milling Machine components as well as the cutting tools and basic work holding devices that may be used on the machine. The importance of proper tool selection and usage as utilizing the Milling Machines components properly will be the concentration.

## Introduction to Solid Modeling

**32420310.....2 credits**

Introduces students creating computer-aided drafting (CAD) represented solid models for use in the manufacturing arena. As an introductory course in three-dimensional modeling, learners use computer software to develop two-dimensional sketches and use modeling tools to create solid models on the computer. Students also use the models to create and detail two-dimensional engineering drawings for use on the manufacturing floor. Computer knowledge and prior knowledge of drawing/drafting techniques is recommended.

## Introduction to Turning Machines

**32420326.....2 credits**

This course will introduce functions and capabilities of turning machines known as lathes. Activities and hands-on lab exercises will be used to introduce learners to the most common applications of lathes in the machine shop. Shop safety, terminology, and identification of turning machines and related equipment in a machine shop environment will be introduced. Learners will also gain an understanding of basic setup and metal cutting processes performed on turning machines.

## Lathes-Advanced

**32420335.....2 credits**

Students receive further insight into lathe concepts. Includes safety review and covers advanced cutting tool materials such as carbides, ceramics, cubic boron nitride (CBN), and polycrystalline diamonds (PCD). Tooling, speeds and feeds, cutting tool selection, and advanced machine practices such as multi-operations and process planning are also covered.  
*Prerequisite: Precision Turning Machine Applications 32420328*

## Manufacturing Practices

**10623112.....2 credits**

As competition for market share continues to increase, manufacturers rely on innovations in technology, methods, and practices to give them the edge they need. To remain competitive globally, the watchwords are productivity, efficiency, and quality. In this course, students examine some of the practices that many manufacturing operations have come to rely on to make their operations competitive, efficient, and cost-effective. Topics covered in this class include the principles of lean manufacturing, value versus non-value added waste, 5S methodology, value stream mapping, setup reduction and quick changeover, cellular flow, building a lean culture, total productive maintenance, and statistical process control (SPC).

## Metals Science

**32420312.....2 credits**

Introduces the field of metallurgy. Covers sources of common metals, including both ferrous and non-ferrous methods of ore extraction, and refining and classification of these metals and the alloy systems. The heat treatment of various metals and properties of metals are studied, including lab work on shear, compression, tensile strength, and corrosion.

## Milling Machine Foundations

**32420338.....3 credits**

This course will develop additional skills needed for effective milling machine operations. Common work holding and fixturing tools will be utilized to create parts accurately. Classroom presentation and lab activities will be utilized to hone the learner's skills with manual milling machines. Attention will be on the use of advanced cutting tools and work holding techniques.

*Corequisite: Introduction to Milling Machines 32420337*

## Mills-Advanced

**32420336.....2 credits**

Provides greater insight into milling machine concepts. Places major emphasis on milling machine terminology, work-holding methods, location principles, tooling, and cutting tool selection, in addition to operations and process planning. Includes rotary tables and indexing methods such as direct, simple, and angular.

*Prerequisite: Precision Milling Machine Applications 32420339*

## Multi-Axis Machining Processes

**32420380.....3 credits**

Multi-Axis CNC machines have become standard in the machining industry. Participants in this course will become familiar with the set-up procedures for 4 and 5 axis milling machines, manual programming techniques, and advanced CAM programming for multi-axis positioning and contouring. Lab activities and classroom presentations will prepare students for the added machining versatility of multi-axis machines.

## Precision Milling Machine Applications

**32420339.....3 credits**

Learners will build additional skills from previous classroom experiences related to milling machines. Classroom presentations and lab projects will focus on safety, theory, terminology, machine tool setups, calculations and machine operations. Projects will be built using milling machines. Special attention will be on safety, print reading, layout, inspection and shop math.

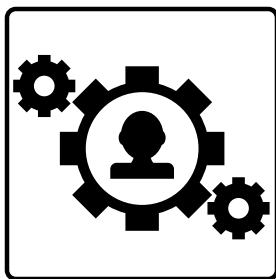
*Corequisite: Introduction to Milling Machines 32420337*



**Precision Turning Machine Applications**  
**32420328.....3 credits**  
This course will continue to build skills on applications of turning machine operations. Presentations and lab activities will prepare learners to work efficiently and accurately with precision tolerances as a standard. Learners will be introduced to multiple lathe operations including drilling, reaming, thread cutting processes, and an introduction to CNC lathe operations.  
*Corequisite: Introduction to Turning Machines 32420326*

**Technical Drawing Interpretation**  
**10623116.....2 credits**  
Technical drawings are the heart of the manufacturing process. This course will develop proficiency with the visualization of multi-view orthographic projection drawings, interpretation of print symbols, dimensioning standards, tolerance standards, assembly drawings, section and auxiliary views. Included in this course will be hands on drawing and interpretation of prints as well as classroom presentations.

**Turning Machine Foundations**  
**32420327.....3 credits**  
Students enrolled in this course will build additional skills from previous classroom experiences related to turning machines. Presentations and lab activities will focus on safety, machine setups, common calculations encountered, and chip making processes. Learners lab projects will be created using techniques to insure accuracy, efficiency and repeatability. Emphasis will be put on common procedures and inspection processes to produce quality components.  
*Corequisite: Introduction to Turning Machines 32420326*



# manufacturing operations management

## Associate in Applied Science (AAS) Program Code: 10-196-5 Total Credits: 60-61

The Manufacturing Operations Management program is designed to help those with some prior experience in manufacturing advance into management positions. Graduates are prepared to supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators. Supply chain, automation, quality, lean leadership, and supervisory skills are all emphasized along with creative problem solving and team building. Students in the program will have opportunities to explore manufacturing facilities where they will analyze manufacturing operations, identify process efficiencies, and identify management strategies leading to quality production and processing.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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- FAFSA ([www.fafsa.gov](http://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: \_\_\_\_\_  
\_\_\_\_\_

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TECHNICAL COLLEGE

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Adams, WI 53910

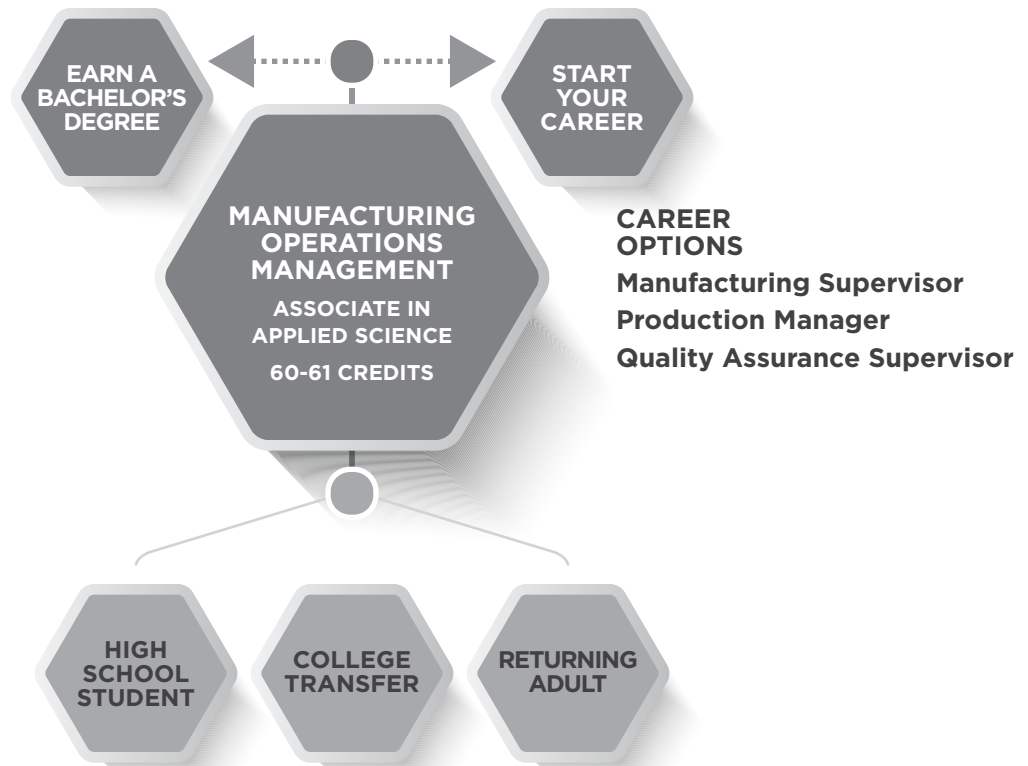
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**STEVENS POINT CAMPUS**  
1001 Centerpoint Drive  
Stevens Point, WI 54481

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

## BACHELOR'S DEGREE OPTIONS

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College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Industrial Mechanical Technician
- Machine Tool Technician
- Stainless Steel Welding
- Welding



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		15-16 credits
10196189	Team Building & Problem Solving	3
10196191	Supervision	3
10462107	Industrial Safety	2
10623114	Intro to Inventor	1
10801136	English Composition 1	3
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
	<b>-or-</b>	
10804189	Introductory Statistics	3
Term		15 credits
10102110	Employment Law	3
10102121	Finance and Budgeting	3
10103123	Excel-Beginning	1
10623112	Manufacturing Practices	2
10801196	Oral/Interpersonal Communication	<b>-or-</b>
10801198	Speech	3
10809166	Intro to Ethics: Theory & Application	3
Term		15 credits
10196190	Leadership Development	3
10196193	Human Resource Management	3
10605117	Automation 1 - Beginning PLC	3
10623169	Manufacturing Operations Management Internship	3
10809188	Developmental Psychology	<b>-or-</b>
10809198	Intro to Psychology	3
Term		15 credits
10102131	Entrepreneurial Management	3
10196192	Managing for Quality	3
10623132	Project Management for Manufacturing	3
10623171	Lean Six Sigma	3
10809172	Introduction to Diversity Studies	3
		<b>Total credits 60-61</b>

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10462107	Industrial Safety	2
10623114	Intro to Inventor	1
10801136	English Composition 1	3
Term		7-8 credits
10103123	Excel-Beginning	1
10804107	College Mathematics	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications	4
	<b>-or-</b>	
10804189	Introductory Statistics	3
10809166	Intro to Ethics: Theory & Application	3
Term		8 credits
10102121	Finance and Budgeting	3
10196191	Supervision	3
10623112	Manufacturing Practices	2
Term		9 credits
10102110	Employment Law	3
10196189	Team Building & Problem Solving	3
10801196	Oral/Interpersonal Communication	<b>-or-</b>
10801198	Speech	3
Term		6 credits
10196190	Leadership Development	3
10809188	Developmental Psychology	<b>-or-</b>
10809198	Intro to Psychology	3
Term		9 credits
10196192	Managing for Quality	3
10196193	Human Resource Management	3
10809172	Introduction to Diversity Studies	3
Term		6 credits
10605117	Automation 1 - Beginning PLC	3
10623169	Manufacturing Operations Management Internship	3
Term		9 credits
10102131	Entrepreneurial Management	3
10623132	Project Management for Manufacturing	3
10623171	Lean Six Sigma	3
		<b>Total credits 60-61</b>

## Automation 1 - Beginning PLC

**10605117 .....3 credits**

An overview of programmable logic controllers (PLCs) that provides a foundation of knowledge of the programming techniques, operation, and maintenance of PLCs used in typical industrial automation.

## College Mathematics

**10804107 .....3 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 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.*

## 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.*

## Employment Law

**10102110.....3 credits**

Introduces a broad scope of employment laws and provides the opportunity to apply these laws to the employment arena. Includes laws relating to anti-discrimination, including the Civil Rights Act, ADEA, and ADA; wage and hour regulation, including FLSA; employer-provided pensions, including ERISA; health insurance, including COBRA and ACA; and unemployment and worker's compensation insurance.

## English Composition 1

**10801136 .....3 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 10831103 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.*

## Entrepreneurial Management

**10102131 .....3 credits**

Introduces students to the concept of entrepreneurship. Learners study entrepreneurial practices primarily by developing a business plan for a venture of their choice. This includes comparing ways of going into business as well as developing marketing, legal, financial, products/ services, management, and operations plans for a small business of their choice. Entrepreneurial behavior within companies is examined.

*Prerequisite: Twelve Business Management 10-102 credits or twelve Supervisory Management 10-196 credits or a combination of Business Management 10-102 and Supervisory Management 10-196 credits that total twelve.*

## Excel-Beginning

**10103123.....1 credit**

Students learn to create, modify, and format spreadsheets, charts, and graphics. Students also learn to perform calculations and analysis on data.

## Finance and Budgeting

**10102121 .....3 credits**

For the nonfinancial manager, this course introduces the language of accounting, finance, and budgeting. Provides an overview of the use and analysis of financial statements. Business planning and the foundations and development of budgets are explored. Business financing basics and the securing of necessary financing for a business are covered. Practical application of financial statement creation and analysis, budgetary activities, and finance calculations are included.

## Human Resource Management

**10196193.....3 credits**

Applies skills and tools necessary to perform human resource functions in an organization. Each learner demonstrates skill in following EEOC laws; writing job descriptions; recruiting, selecting, and orienting employees; developing policies and procedures; developing and conducting training; designing performance appraisal plans; developing employee development plans; and selecting compensation and benefit strategies.

## Industrial Safety

**10462107 .....2 credits**

Provides an overview of safety, health, and environmental issues as they relate to industry. Various types of hazards and the controls and equipment used to reduce risks from hazards are discussed. Focuses on understanding the Occupational Safety and Health Administration (OSHA) and its function as well as other regulatory and enforcement agencies associated with industrial safety, health, and the environment.

## 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

**10809166 .....3 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 Inventor

**10623114 ..... 1 credit**

Learners will create 3D models in Inventor using a variety of feature and modify tools, analyze the volume of the models, and apply a material to determine weight of the finished product. Learners will generate 2D representations of the 3D model in appropriate views, and add dimensions and annotations before formatting drawings to print out. Prior experience with computers is recommended.

## Intro to Psychology

**10809198 .....3 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.*

## Introduction to Diversity Studies

**10809172.....3 credits**

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored. *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

**10804189 .....3 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 10834109 with a grade of "C" or better or College Math 10804107 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.*

## Leadership Development

**10196190 .....3 credits**

Applies skills and tools necessary to fulfill his/her role as a modern leader. Each learner evaluates personal leadership effectiveness, use individual and group motivation strategies, implement mission and goals, demonstrate ethical behavior, adapt personal leadership style to worker readiness, use power, facilitate employee development, coach, manage change, and resolve conflict.

## Lean Six Sigma

**10623171.....3 credits**

Learners will examine two models of problem solving/continuous improvement (the PDCA/PDSA and the DMAIC models). Learners will utilize an A3 report to identify the current process condition, identify improvement goals, establish root causes, specify improvement activities, and confirm results. Learners will utilize the seven SPC (Statistical Process Control) tools and selected Quality Management Tools in the improvement process. Learners will examine the steps of planning and executing a Kaizen Event as well as supporting daily Kaizen activities.

*Prerequisite: Admission to Manufacturing Operations Management program 101965 or Leadership Development program 101961*

## Managing for Quality

**10196192.....3 credits**

Apply skills and tools necessary to implement and maintain a continuous improvement environment. Each learner will demonstrate the application of a personal philosophy of quality, identify stakeholder relationships, identify ways to meet/exceed customer expectations, apply a systems-focused approach, use quality models and tools, manage a quality improvement project, and measure effectiveness of continuous improvement activities.

## Manufacturing Operations Management Internship

**10623169.....3 credits**

This internship provides students with practical knowledge and experience in the manufacturing industry through the lens of supervisors and managers. Integrating the theories and techniques learned in previous courses with specific off-campus occupational experiences at selected training sites allows students to gain a real-world perspective of this segment of the manufacturing industry.

## Manufacturing Practices

**10623112.....2 credits**

As competition for market share continues to increase, manufacturers rely on innovations in technology, methods, and practices to give them the edge they need. To remain competitive globally, the watchwords are productivity, efficiency, and quality. In this course, students examine some of the practices that many manufacturing operations have come to rely on to make their operations competitive, efficient, and cost-effective. Topics covered in this class include the principles of lean manufacturing, value versus non-value added waste, 5S methodology, value stream mapping, setup reduction and quick changeover, cellular flow, building a lean culture, total productive maintenance, and statistical process control (SPC).

## 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 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.*

## Project Management for Manufacturing

**10623132.....3 credits**

Offers a systematic approach to coordinating, scheduling, and controlling activities, people, and resources during short-term and long-term projects. Some of the tools presented include Work Breakdown Structures, Activity Diagrams, and Gantt Charts.

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

*Pre-requisite: 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.*

## Supervision

**10196191.....3 credits**

Applies skills and tools necessary to perform the functions of a contemporary frontline leader. Students engage in operational planning, analyze organizational structures, review the staffing process, employ techniques to enhance employee personal and group effectiveness, and develop control techniques to measure effectiveness in the above areas.

## Team Building & Problem Solving

**10196189.....3 credits**

Applies skills and tools necessary to facilitate problem solving in a team environment. Each learner assumes the roles and responsibilities of team leadership in the stages of team development, uses a systematic problem-solving process, and employs consensus-building and conflict-management strategies.





# medical assistant

## Technical Diploma Program Code: 31-509-1 Total Credits: 32

Mid-State's Medical Assistant program prepares graduates to work confidently in medical offices and clinics, assisting in the reception, examination, and treatment of patients. You'll learn valuable clinical and clerical skills as well as how to sterilize equipment and perform lab procedures, EKGs, and injections. The program's combination of classroom instruction and clinical practicum at a variety of area medical offices and clinics provides comprehensive, cognitive (knowledge), psychomotor (skills), and affective (behavior) preparation. Successful graduates are eligible to write one of two voluntary national certification exams for medical assistants.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://mstc.edu/programcosts)

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Mid-State Technical College  
Student Services Assistant  
1001 Centerpoint Drive  
Stevens Point, WI 54481
- Criminal Background Statement of Understanding and Release of Information Form
- Other: \_\_\_\_\_  
\_\_\_\_\_

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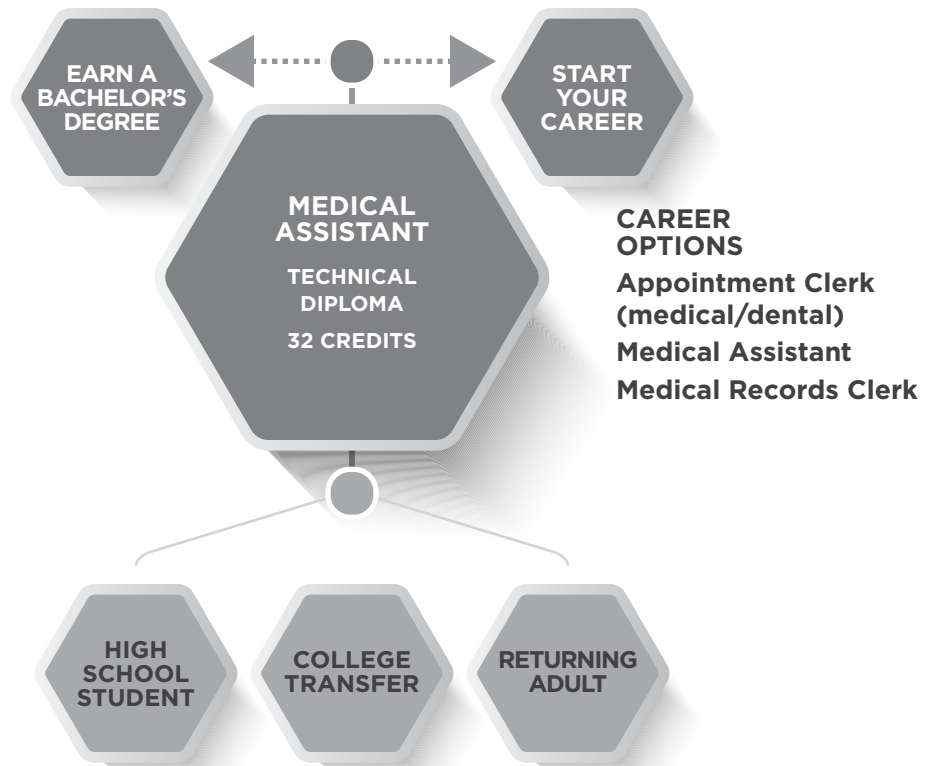
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## OTHER OPTIONS

### RELATED PROGRAMS

- Central Service Technician
- Health Information Management
- Health & Wellness Promotion
- Medical Coder
- Nursing
- Nursing Assistant
- Pharmacy Services Management
- Pharmacy Technician
- Phlebotomy Technician
- Respiratory Therapy
- Surgical Technologist



## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

#### 10890102 ..... 1 credit

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

#### 10838104 ..... 2 credits

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

#### 10831103 ..... 3 credits

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

#### 10834109 ..... 3 credits

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10501101	Medical Terminology	3
10501104	Culture of Healthcare	2
10501107	Digital Literacy for Healthcare	2
31509302	Human Body in Health & Disease	3
31509303	Medical Assistant Laboratory Procedures 1	2
31509304	Medical Assistant Clinical Procedures 1	4

Term		16 credits
10501108	Pharmacology for Allied Health	2
10501109	Medical Law, Ethics, and Professionalism	2
31509301	Medical Assistant Administrative Procedures	2
31509305	Medical Assistant Laboratory Procedures 2	2
31509306	Medical Assistant Clinical Procedures 2	3
31509307	Medical Office Insurance and Finance	2
31509310	Medical Assistant Practicum	3

**Total credits 32**

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		8 credits
10501101	Medical Terminology	3
10501107	Digital Literacy for Healthcare	2
31509302	Human Body in Health & Disease	3

Term		6 credits
10501104	Culture of Healthcare	2
10501108	Pharmacology for Allied Health	2
10501109	Medical Law, Ethics, and Professionalism	2

Term		8 credits
31509301	Medical Assistant Administrative Procedures	2
31509303	Medical Assistant Laboratory Procedures 1	2
31509304	Medical Assistant Clinical Procedures 1	4

Term		10 credits
31509305	Medical Assistant Laboratory Procedures 2	2
31509306	Medical Assistant Clinical Procedures 2	3
31509307	Medical Office Insurance and Finance	2
31509310	Medical Assistant Practicum	3

**Total credits 32**

## Culture of Healthcare

**10501104.....2 credits**

An introduction to the culture of healthcare for students interested in working in various healthcare settings. Learners examine professionalism, interpersonal and written communication skills, problem-solving skills and patient privacy and confidentiality issues as they relate to healthcare.

## Digital Literacy for Healthcare

**10501107 .....2 credits**

The focus of this course is the use of technology in healthcare. Learners use common business software applications, including word processing, presentation, spreadsheet, and databases. Communication methods using technology are addressed. Learners gain experience with using the electronic health record (EHR). Healthcare EHR security issues, social media use, and digital healthcare resources are examined.

## Human Body in Health & Disease

**31509302.....3 credits**

Focuses on diseases that are frequently first diagnosed and treated in the medical office setting. Students learn to recognize the causes, signs, and symptoms of diseases of the major body systems as well as the diagnostic procedures, usual treatment, prognosis and prevention of common diseases.

## Medical Assistant Administrative Procedures

**31509301.....2 credits**

Introduces medical assistant students to office management, business administration, and the electronic medical record (EMR) in the medical office. Students learn to schedule appointments, perform filing, record keeping, telephone and reception duties, communicate effectively with patients and other medical office staff, and keep an inventory of supplies.

*Prerequisite: Admission to Medical Assistant program 315091*

## Medical Assistant Clinical Procedures 1

**31509304..... 4 credits**

Introduces medical assistant students to clinical procedures performed in the medical office setting. Students perform basic examining room skills, including screening, vital signs, patient history, minor surgery, and patient preparation for routine and specialty exams in the ambulatory setting. Learner explores communication principles and psychology theories related to patient care.

*Prerequisite: Admission into Medical Assistant program 315091;*

*Corequisite: Medical Assistant Laboratory Procedures 1 31509303*

## Medical Assistant Clinical Procedures 2

**31509306.....3 credits**

Prepares medical assistant students to perform patient care skills in the medical office setting. Students perform clinical procedures including administering medications, assisting with minor surgery, performing an electrocardiogram, assisting with respiratory testing, educating patients/community, and maintaining clinical equipment in an ambulatory setting. Students learn preventive care and principles of nutrition.

*Prerequisites: Medical Assistant Clinical Procedures 1 31509304, Medical Assistant Laboratory Procedures 1 31509303, Medical Terminology 10501101, and Human Body in Health and Disease 10509102; Corequisite: Medical Assistant Laboratory Procedures 2 31509305*

## Medical Assistant Laboratory Procedures 1

**31509303 .....2 credits**

Introduces medical assistant students to laboratory procedures commonly performed by medical assistants in a medical office setting. Students perform Clinical Laboratory Improvement Amendment (CLIA) waived routine laboratory procedures commonly performed in the ambulatory care setting. Students follow laboratory safety requirements and federal regulations while performing specimen collection and processing, microbiology and urinalysis testing.

*Prerequisite: Admission to Medical Assistant program 315091;*

*Corequisite: Medical Assistant Clinical Procedures 1 31509304*

## Medical Assistant Laboratory Procedures 2

**31509305.....2 credits**

Prepares students to perform phlebotomy and Clinical Laboratory Improvement Amendment (CLIA) waived hematology, chemistry, immunology and laboratory procedures commonly performed by medical assistants in the ambulatory care setting.

*Prerequisite: Medical Assistant Laboratory Procedures 1 31509303;*

*Corequisite: Medical Assistant Clinical Procedures 2 31509306*

## Medical Assistant Practicum

**31509310.....3 credits**

Requires medical assistant students to integrate and apply knowledge and skills from all previous medical assistant courses in actual ambulatory health care settings. Learners perform medical assistant administrative, clinical, and laboratory duties under the supervision of trained mentors to effectively transition to the role of a medical assistant. This is a supervised, unpaid, clinical experience. AAMA required Practicum - 160 minimum hours (AAMA minimum) up to 216 hours.

*Prerequisites: Medical Assistant Laboratory Procedures 2 31509305 and Medical Assistant Clinical Procedures 2 31509306*

## **Medical Law, Ethics, and Professionalism**

**10501109 .....2 credits**

Prepares students to display professionalism and perform within ethical boundaries in the healthcare setting. Students maintain confidentiality, examine legal aspects of the medical record, perform risk management procedures, and examine legal and bioethical issues.

## **Medical Office Insurance and Finance**

**31509307 .....2 credits**

Introduces medical assistant students to health insurance and finance in the medical office. Students perform bookkeeping procedures, apply managed care guidelines, and complete insurance claim forms. Students also use medical coding and managed care terminology to perform insurance-related duties.

*Prerequisite: Admission to Medical Assistant program 315091;*

*Corequisite: Medical Assistant Clinical Procedures 2 31509306.*

## **Medical Terminology**

**10501101 ..... 3 credits**

Focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasizes spelling, definition, and pronunciation. Introduces operative, diagnostic, therapeutic, and symptomatic terminology of all body systems as well as systemic and surgical terminology.

## **Pharmacology for Allied Health**

**10501108 .....2 credits**

Introduces students to medication classification, basic pharmacology principles, and supplements. Students apply basic pharmacodynamics to identify common medications and calculate dosages in preparation for medication administration.



# medical coder

## Technical Diploma Program Code: 31-530-3 Total Credits: 30

The Medical Coder program at Mid-State prepares students for entry-level work as medical coders in health care settings such as hospitals, physician offices, long-term care facilities, and more. Medical coders review medical documentation and assign diagnosis and procedure codes for the purposes of billing, quality improvement, statistical reporting, and medical research. In this program, you'll be introduced to reimbursement principles and build proficiency in assigning codes across all settings. After program completion, graduates may qualify to take the Certified Coding Associate (CCA) credentialing exam through American Health Information Management Association (AHIMA).

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

UW-Green Bay,  
Health Information Management & Technology - (Online BS)

UW-LaCrosse,  
Health Information Management & Technology - (Online BS)

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

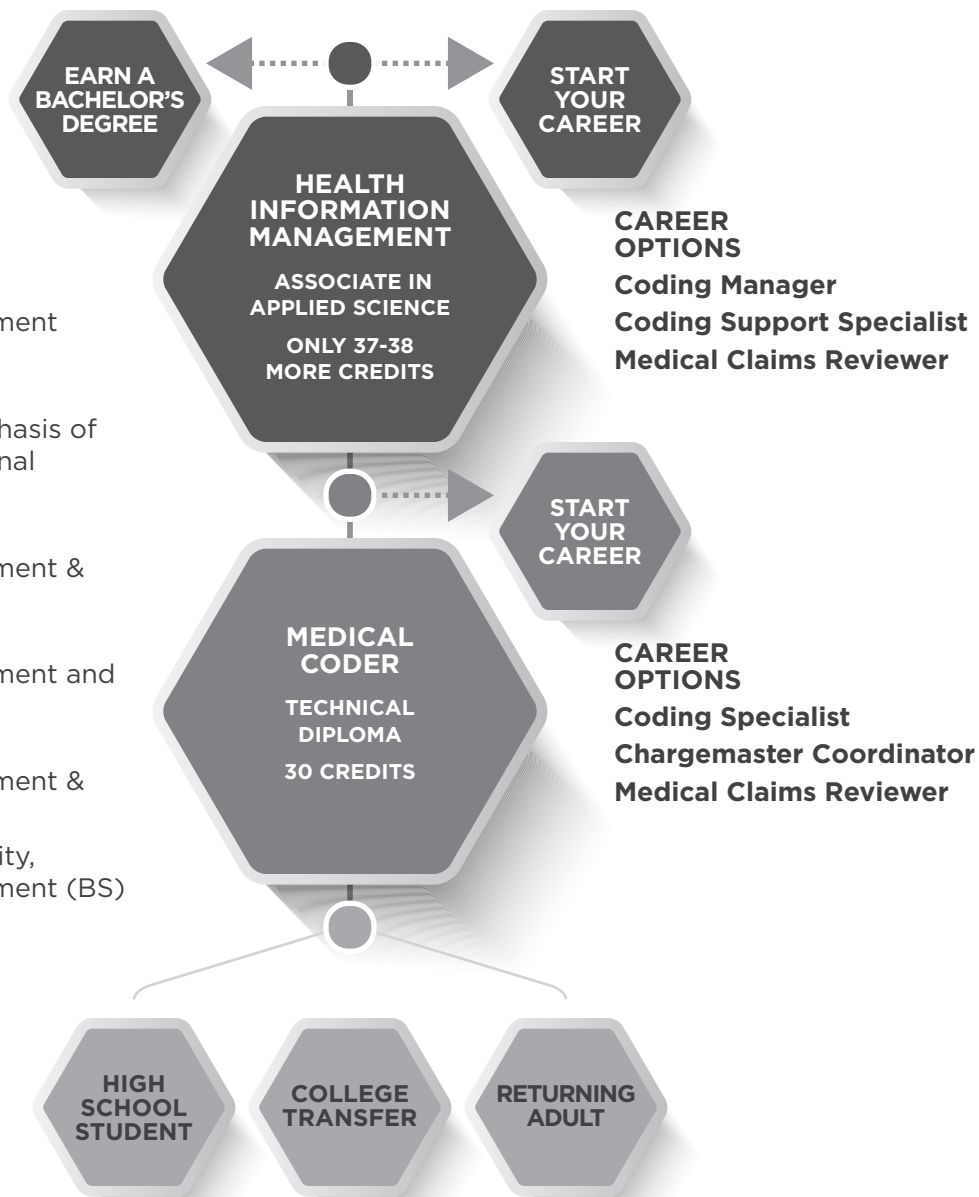
UW-Parkside,  
Health Information Management & Technology - (Online BS)

UW-Stevens Point,  
Health Information Management and Technology Degree (BS)

UW-Stevens Point,  
Health Information Management & Technology - (Online BS)

Western Governor's University,  
Health Information Management (BS)

**For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**College Credit • Dual Credit • Military Experience • Work Experience**  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

## OTHER OPTIONS

### RELATED PROGRAMS

- Central Service Technician
- Health & Wellness Promotion
- Medical Assistant
- Nursing
- Nursing Assistant
- Pharmacy Services Management
- Pharmacy Technician
- Phlebotomy Technician
- Respiratory Therapy
- Surgical Technologist

**BEGIN AT ANY POINT  
IN THE PATHWAY**



## PROGRAM OUTCOMES

Employers will expect you, as a Medical Coder graduate, to be able to:

- Review clinical documentation and diagnostic results to ensure accurate diagnostic and procedural coding.
- Extract and abstract data, and apply appropriate clinical codes using proper classification systems accurately.
- Provide charge validation.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students are notified of TSA reporting in their final few courses of the program.

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as a medical coder is at [mstc.edu/programs/medical-coder](http://mstc.edu/programs/medical-coder). Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## PROGRAM PROGRESSION AND COMPLETION

In order to progress in and successfully complete the program, students must:

- Repeat courses not completed with a grade of “C” or better prior to progressing in core courses or other courses with co- or prerequisites.
- Receive a grade of “C” or better in all courses required for graduation.

A student may repeat the same course only once in the Medical Coder program. If the course is failed a second time, the student will be withdrawn from the Medical Coder program. If a Medical Coder student fails four separate program courses, the student will be withdrawn from the program. Failures will include failing the same course or failing different courses. A withdrawal grade of “W” counts as one attempt for the course.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State’s student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State’s Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

**10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 ..... 2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 ..... 3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 ..... 3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of “S.” (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		9 credits
10501101	Medical Terminology	3
10530111	Introduction to Health Records	3
10806189	Basic Anatomy	3
Term		12 credits
10530122	Electronic Health Records	3
10530144	CPT Coding	3
10530182	Human Disease for the Health Professions	3
10530197	ICD Diagnosis Coding	3
Term		9 credits
10530146	Private and Government Reimbursement	3
10530147	HIM Advanced Coding	3
10530166	Inpatient Procedure Coding	3
<b>Total credits</b>		<b>30</b>

Please Note:

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- Program completion time may vary based on student scheduling and course availability. For details, go to [mstc.edu/classfinder](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10530111	Introduction to Health Records	3
10501101	Medical Terminology	3
Term		3 credits
10806189	Basic Anatomy	3
Term		6 credits
10530122	Electronic Health Records	3
10530182	Human Disease for the Health Professions	3
Term		6 credits
10530144	CPT Coding	3
10530197	ICD Diagnosis Coding	3
Term		9 credits
10530146	Private and Government Reimbursement	3
10530147	HIM Advanced Coding	3
10530166	Inpatient Procedure Coding	3
<b>Total credits</b>		<b>30</b>

## course descriptions

### Basic Anatomy

#### 10806189 .....3 credits

Examines concepts of anatomy and physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems.

### CPT Coding

#### 10530144 .....3 credits

Prepares learners to assign current procedural terminology (CPT) codes supported by medical documentation with entry-level proficiency. Students are familiar with and use standard coding references. Emphasizes accuracy, CPT instructional notations, conventions, rules, and official coding guidelines when assigning CPT codes to case studies and actual medical record documentation. Also covers application of modifiers to services and relationship to financial impact.

*Prerequisites:* Medical Terminology 10501101, Basic Anatomy 10806189, and Introduction to Health Records 10530111; *Corequisite:* Human Disease for the Health Professions 10530182

### Electronic Health Records

#### 10530122 .....3 credits

Introduces students to the electronic health record (EHR) as a technology-based representation of healthcare data integration from a participating collection of varied systems for a single patient. Course covers emerging use of the electronic health record, an overview of EHR, applications, benefits and barriers to its use, vocabularies, principles of implementation, health information exchange, standards, privacy, security, information retrieval, digital libraries, and image management.

*Prerequisites:* Medical Terminology 10501101, Basic Anatomy 10806189, and Introduction to Health Records 10530111; *Corequisite:* Human Disease for the Health Professions 10530182

### HIM Advanced Coding

#### 10530147 .....3 credits

Builds on basic coding knowledge and skills through the coding of clinical case studies and actual medical records. Students access, review, and code electronic medical records from the virtual lab software; perform data quality reviews to validate code assignment and compliance with reporting requirements; develop appropriate physician queries; and assign diagnosis related groups (DRGs) and ambulatory payment classifications (APCs) with entry-level proficiency using computerized encoding and grouping software.

*Prerequisites:* ICD Diagnosis Coding 10530197 and CPT Coding 10530144; *Corequisites:* Private & Government Reimbursement 10530146 and Inpatient Procedure Coding 10530166

### Human Disease for the Health Professions

#### 10530182 .....3 credits

Focuses on the common diseases of each body system as encountered in all types of healthcare settings by health information professionals. Emphasizes understanding the etiology (causes), signs and symptoms, diagnostic tests, and treatment (including pharmacologic) of each disease.

*Prerequisites:* Medical Terminology 10501101 and Basic Anatomy 10806189

## ICD Diagnosis Coding

### **10530197.....3 credits**

Prepares students to assign ICD diagnosis codes supported by medical documentation with entry-level proficiency. Students apply instructional notations, conventions, rules, and official coding guidelines when assigning ICD diagnosis codes to case studies and actual medical record documentation.

*Prerequisites: Medical Terminology 10501101, Introduction to Health Records 10530111, and Basic Anatomy 10806189; Corequisite: Human Disease for the Health Professions 10530182*

## Inpatient Procedure Coding

### **10530166.....3 credits**

Prepares students to assign ICD procedure codes supported by medical documentation with entry-level proficiency. Students apply instructional notations, conventions, rules, and official coding guidelines when assigning ICD procedure codes to case studies and actual medical record documentation.

*Prerequisites: Medical Terminology 10501101, Introduction to Health Records 10530111, Basic Anatomy 10806189, and Human Disease for the Health Professions 10530182*

## Introduction to Health Records

### **10530111.....3 credits**

Focuses on the purpose, format, content, use, confidentiality, and administrative issues of a patient's medical history and care. Students study the use of the patient's medical record as a basis for planning patient care, documenting communication between the health care provider and any other health professional contributing to the patient's care, assisting in protecting the legal interest of the patient and the health care providers responsible for the patient's care, and documenting the care and services provided to the patient. Emphasizes accuracy, organization, and confidentiality. Students are introduced to electronic medical record (EMR) concepts.

*Corequisite: Medical Terminology 10501101*

## Medical Terminology

### **10501101..... 3 credits**

Focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Learners practice formation, analysis, and reconstruction of terms. Emphasizes spelling, definition, and pronunciation. Introduces operative, diagnostic, therapeutic, and symptomatic terminology of all body systems as well as systemic and surgical terminology.

## Private and Government Reimbursement

### **10530146 .....3 credits**

Introduces students to the vocabulary of private healthcare and government reimbursement. Students will identify and compare the varieties of private and government healthcare insurance including the advantages and disadvantages of each for the provider and for the policyholder. HIPAA guidelines are utilized throughout.

*Prerequisites: ICD Diagnosis Coding 10530197 and CPT Coding 10530144; Corequisite: Inpatient Procedure Coding 10530166*



# microsoft system administrator

## Technical Diploma

**Program Code: 30-150-5**

**Total Credits: 12**

Managing and troubleshooting network environments based on the Windows Server operating system is a growing field of expertise in IT. Mid-State's Microsoft System Administrator program covers some of the newest and most rapidly expanding technologies in this area. We seek feedback from local employers to ensure course content is always up to date. As a result, you will have the skills and knowledge employers are looking for.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

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- Other: \_\_\_\_\_  
\_\_\_\_\_

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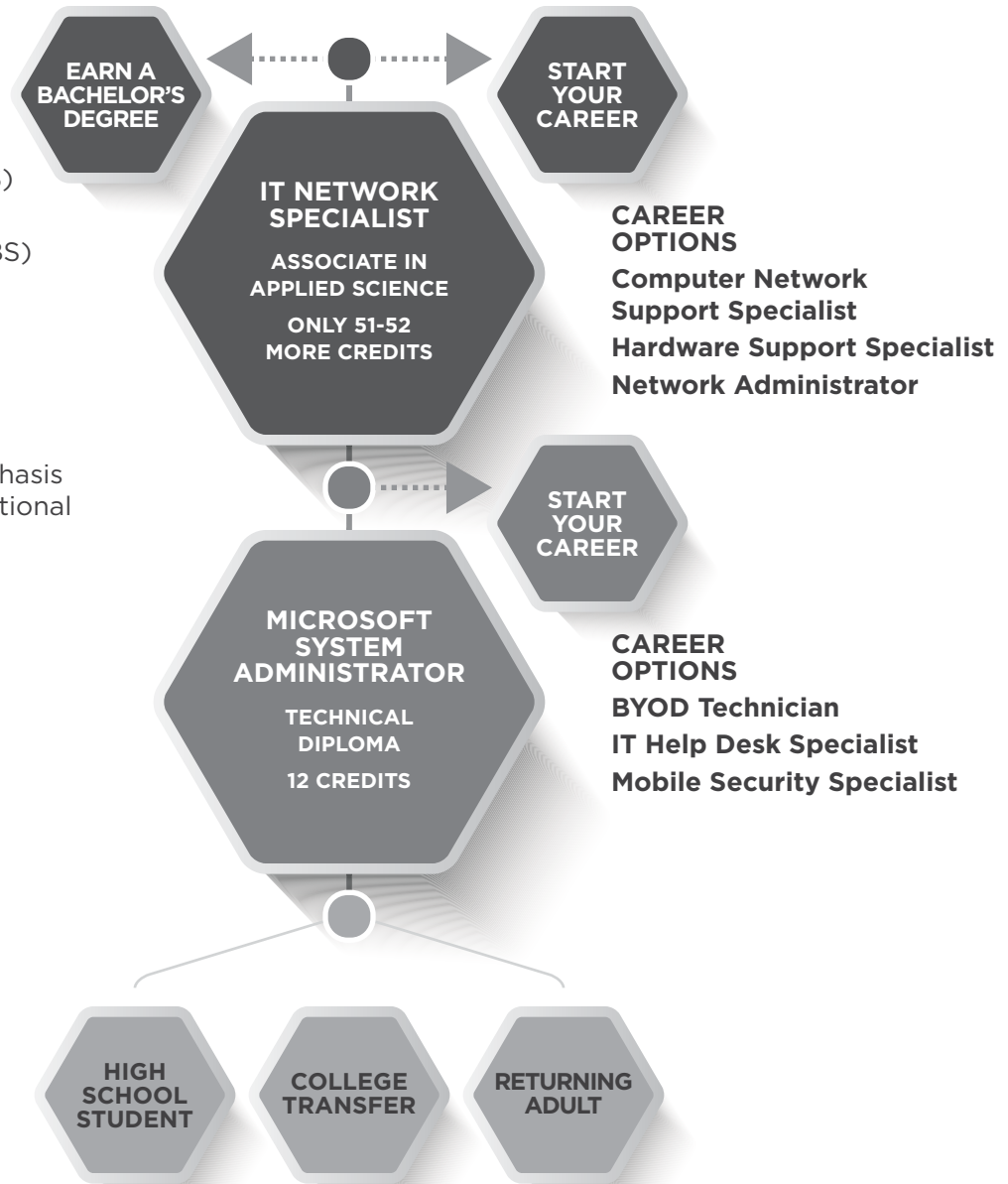
**STEVENS POINT CAMPUS**  
1001 Centerpoint Drive  
Stevens Point, WI 54481

**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](http://mstc.edu/transfer).**



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Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

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## OTHER OPTIONS

### RELATED PROGRAMS

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



## SAMPLE FULL-TIME CURRICULUM OPTION

<b>Term</b>		<b>3 credits</b>
10154102	Hardware Essentials	3
<b>Term</b>		<b>6 credits</b>
10150120	Server Administration-Beginning	3
10150165	Network Server Scripting	3
<b>Term</b>		<b>3 credits</b>
10150121	Server Administration-Intermediate	3
		<b>Total credits 12</b>

Please Note:

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- Program completion time may vary based on student scheduling and course availability. For details, go to [mstc.edu/classfinder](http://mstc.edu/classfinder).

## course descriptions

### Hardware Essentials

#### **10154102 .....3 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*

### Network Server Scripting

#### **10150165 .....3 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*

### 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: Hardware Essentials 10154102*

### Server Administration-Intermediate

#### **10150121 .....3 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*



# nursing

## Associate in Applied Science (AAS) Program Code: 10-543-1 Total Credits: 65

The Associate Degree Nursing (ADN) program at Mid-State prepares each graduate to work successfully as a registered nurse (RN). Students acquire a balance of knowledge and technical skills in physical and biological sciences, social sciences, and nursing. They also contribute to classroom discussion, independent learning projects, simulation labs, and hands-on clinical experiences at area healthcare agencies. After completing the first year (32 credits), you can opt to take the national licensing test for Licensed Practical Nurse. After 65 credits you will be eligible to take the national licensing exam for Registered Nurse.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://mstc.edu/programcosts)

### ACADEMIC ADVISOR

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### CHECKLIST:

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Where: \_\_\_\_\_  
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Student Services Assistant  
1001 Centerpoint Drive  
Stevens Point, WI 54481
- Criminal Background Statement of Understanding and Release of Information Form
- Technical Standards Form
- Other: \_\_\_\_\_  
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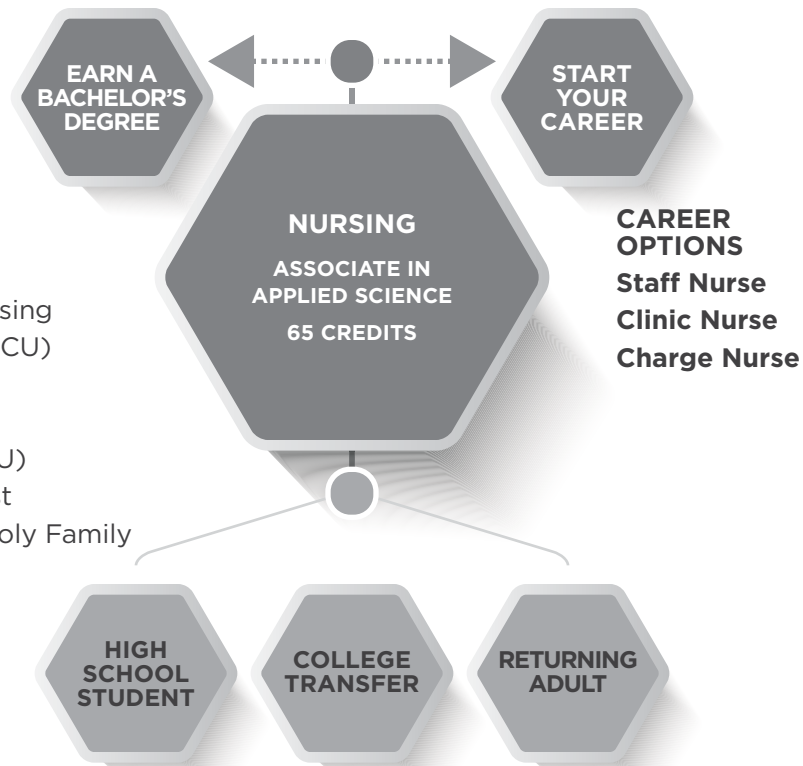
**WISCONSIN RAPIDS CAMPUS**  
500 32nd Street North  
Wisconsin Rapids, WI 54494



## BACHELOR'S DEGREE OPTIONS

Alverno College  
Bryant & Stratton College  
Capella University  
Cardinal Stritch University  
Carroll University  
Chamberlain College of Nursing  
Grand Canyon University (GCU)  
Lakeland University  
Marian University  
Mount Mary University (MMU)  
Purdue University Northwest  
Silver Lake College of the Holy Family  
University of Phoenix  
UW-Eau Claire  
UW-Green Bay  
UW-Madison  
UW-Milwaukee  
UW-Stevens Point  
UW-Superior  
Viterbo

For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).



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**BEGIN AT ANY POINT  
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## OTHER OPTIONS

### RELATED PROGRAMS

- Central Service Technician
- Health Information Management
- Health & Wellness Promotion
- Medical Assistant
- Medical Coder
- Nursing Assistant
- Pharmacy Services Management
- Pharmacy Technician
- Phlebotomy Technician
- Respiratory Therapy
- Surgical Technologist

## PROGRAM OUTCOMES

Employers will expect you, as a Nursing graduate, to be able to:

- Implement one's role as a nurse in ways that reflect integrity, responsibility, ethical practices, and an evolving professional identity as a nurse committed to evidence-based practice, caring, advocacy, and quality care.
- Demonstrate appropriate written, verbal, and nonverbal communication in a variety of clinical contexts.
- Integrate social, mathematical, and physical sciences as well as pharmacology and pathophysiology in clinical decision making.
- Provide patient-centered care by utilizing the nursing process across diverse populations and health care settings.
- Minimize risk of harm to patients, members of the health care team, and self through safe individual performance and participation in system effectiveness.
- Lead the multidisciplinary health care team to provide effective patient care throughout the lifespan.
- Use information and technology to communicate, manage data, mitigate error, and support decision making.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Nursing students will take the NCLEX exam, and the results from this exam will satisfy the TSA requirement.

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The Nursing program is approved by the Wisconsin Board of Nursing and fully accredited by the Accreditation Commission for Education in Nursing (ACEN). ACEN can be reached for program verification information at:

**Accreditation Commission for Education in Nursing (ACEN)**  
3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326  
www.acenursing.org • Phone: 404.975.5000

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## TO APPLY

To apply to the Nursing program, please submit the following to Mid-State Admissions:

### Step 1:

1. Complete a Mid-State Application form and return it with a \$30 non-refundable application fee.
2. Submit the Criminal Background Statement of Understanding and Release of Information form. This form is available at [mstc.edu/programs/nursing](http://mstc.edu/programs/nursing).  
**Mid-State Technical College • Admissions**  
**500 32nd Street North, Wisconsin Rapids, WI 54494**
3. Submit Technical Standards form. This form is available at [mstc.edu/programs/nursing](http://mstc.edu/programs/nursing).

### Step 2 (required prior to starting core nursing classes):

1. Complete the Accuplacer or ACT test (if needed, as determined by academic advisor).

2. Complete the Nursing Assistant pre-requisite requirement if needed.
3. Completion of the following courses with a grade of "C" or better:
  - General Anatomy & Physiology
  - Advanced Anatomy & Physiology
  - Developmental Psychology
  - English Composition 1

### General Advising Note

Students are highly encouraged to complete the following courses with a grade of "C" or better prior to starting nursing courses:

- Intro to Psychology
- Intro to Sociology or Introduction to Diversity Studies
- Microbiology
- Oral/Interpersonal Communication or Speech

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as a nurse is available at [mstc.edu/programs/nursing](http://mstc.edu/programs/nursing). Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## CLINICAL-RELATED REQUIREMENTS

Prior to placement at a clinical site, students need to pay for a criminal background check and provide documentation of required health work to a private vendor.

Clinical sites have the right to refuse a student's placement based on inadequate health records, pending charges, or conviction records. Students with a criminal history may not be able to complete clinical courses. Mid-State will make two attempts to place a student in an appropriate clinical experience. If Mid-State is unable to place the student after two attempts, the student will be withdrawn from the clinical course and will not be able to advance in the program.

Prior to beginning a clinical experience in a health care facility, students must:

- a) Submit evidence of completed health work.
- b) Provide evidence of current CPR.
- c) Obtain the required uniform for clinical experiences.
- d) Accept responsibility for clinical assignment(s) regardless of time and location, including transportation and other personal arrangements.

## PROGRAM PROGRESSION AND COMPLETION

In order to progress in and successfully complete the program, students must:

- Maintain a program GPA of 2.0 or higher.
- Receive a grade of "C" or better in all courses required for graduation.
- If a student is not successful in a Nursing 10543 core course, he/she will need to repeat that course prior to progressing in the program. Potential continuation is dependent upon availability in the course/program.

A student may repeat the same course only once in the ADN program. If the course is failed a second time, the student will be withdrawn from the Nursing program. If an ADN student fails four separate nursing courses, the student will be withdrawn from the program. Failures will include failing the same course or failing different courses. A withdrawal grade of “W” counts as one attempt for the course.

### ARTICULATION OPPORTUNITIES

Articulation opportunities are between Wisconsin technical colleges with the implementation of the system-wide nursing curriculum. Identical courses in nursing throughout the Wisconsin Technical College System (WTCS) make transfer and readmission to other WTCS colleges easier for nursing students throughout the state. This articulation is based on seat availability and college residency requirements.

Also, articulation opportunities in nursing are available with most private universities and all public universities in Wisconsin. Generally, a graduate of Mid-State’s Nursing program can expect approximately 60–70 credits to transfer from Mid-State to a Wisconsin university.

### ELIGIBILITY REQUIREMENTS FOR REGISTERED NURSE EXAMINATION

1. Graduated from high school or its equivalent as determined by the Wisconsin State Board of Nursing.
2. Wisconsin State Statutes require that the student DOES NOT have an arrest or conviction record for acts or circumstances that relate directly to the clinical practice of the license being requested (e.g., harm/injury; drug or alcohol impairment). Individuals cannot be discriminated against for arrest or conviction records if the precipitating actions do not directly relate to practice.
3. Graduated from a Wisconsin Board of Nursing approved program.

### MAINTAINING A NURSING LICENSE

The Wisconsin State Board of Nursing may revoke, limit, suspend, or deny renewal of license if the person has committed any of the following:

1. Fraud in the procuring or renewal of the license.
2. One or more violations of the Nurse Practice Act (Chapter 441) or accompanying Administrative Rules.
3. Acts that show practitioner to be unfit or incompetent.
4. Misconduct or unprofessional conduct.

### STUDENT HANDBOOK

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#### GPS for Student Success

##### **10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

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The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

#### Intro to College Reading

##### **10838104 ..... 2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

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##### **10831103 ..... 3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

#### Pre-Algebra

##### **10834109 ..... 3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of “S.” (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

<b>Required Prior to Beginning Nursing Courses</b>		<b>14 credits</b>
10806177	General Anatomy & Physiology	4
10806179	Advanced Anatomy & Physiology	4
10809188	Developmental Psychology	3
10801136	English Composition 1	3
<hr/>		
<b>Term</b>		<b>16 credits</b>
10543101	Nursing Fundamentals	2
10543102	Nursing Skills	3
10543103	Nursing Pharmacology	2
10543104	Nursing Introduction to Clinical Practice	2
10801196	Oral/Interpersonal Communication* <b>-or-</b>	
10801198	Speech*	3
10806197	Microbiology*	4
<hr/>		
<b>Term</b>		<b>10 credits</b>
10543105	Nursing Health Alterations	3
10543106	Nursing Health Promotion	3
10543107	Nursing: Clinical Care Across the Lifespan	2
10543108	Nursing Introduction to Clinical Care Management	2
<hr/>		
<b>Term</b>		<b>12 credits</b>
10543109	Nursing: Complex Health Alterations 1	3
10543110	Nursing: Mental Health and Community Concepts	2
10543111	Nursing: Intermediate Clinical Practice	3
10543112	Nursing Advanced Skills	1
10809198	Intro to Psychology*	3
<hr/>		
<b>Term</b>		<b>13 credits</b>
10543113	Nursing: Complex Health Alterations 2	3
10543114	Nursing: Management and Professional Concepts	2
10543115	Nursing: Advanced Clinical Practice	3
10543116	Nursing: Clinical Transition	2
10809172	Introduction to Diversity Studies* <b>-or-</b>	
10809196	Intro to Sociology*	3
<hr/>		
<b>Total Credits</b>		<b>65</b>

\*Students are highly encouraged to have these courses completed with a grade of "C" or better prior to starting nursing courses

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

<b>Required Prior to Beginning Nursing Courses</b>		<b>7 credits</b>
10806177	General Anatomy & Physiology	4
10809188	Developmental Psychology	3
<hr/>		
<b>Term</b>		<b>7 credits</b>
10806179	Advanced Anatomy & Physiology	4
10801136	English Composition 1	3
<hr/>		
<b>Recommended Prior to Beginning Nursing Courses</b>		<b>13 credits</b>
<b>Term</b>		<b>13 credits</b>
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
10806197	Microbiology	4
10809172	Introduction to Diversity Studies <b>-or-</b>	
10809196	Intro to Sociology	3
10809198	Intro to Psychology	3
<hr/>		
<b>Term</b>		<b>9 credits</b>
10543101	Nursing Fundamentals	2
10543102	Nursing Skills	3
10543103	Nursing Pharmacology	2
10543104	Nursing Introduction to Clinical Practice	2
<hr/>		
<b>Term</b>		<b>10 credits</b>
10543105	Nursing Health Alterations	3
10543106	Nursing Health Promotion	3
10543107	Nursing: Clinical Care Across the Lifespan	2
10543108	Nursing Introduction to Clinical Care Management	2
<hr/>		
<b>Term</b>		<b>9 credits</b>
10543109	Nursing: Complex Health Alterations 1	3
10543110	Nursing: Mental Health and Community Concepts	2
10543111	Nursing: Intermediate Clinical Practice	3
10543112	Nursing Advanced Skills	1
<hr/>		
<b>Term</b>		<b>10 credits</b>
10543113	Nursing: Complex Health Alterations 2	3
10543114	Nursing: Management and Professional Concepts	2
10543115	Nursing: Advanced Clinical Practice	3
10543116	Nursing: Clinical Transition	2
<hr/>		
<b>Total Credits</b>		<b>65</b>

## Advanced Anatomy & Physiology

**10806179..... 4 credits**

The second semester in a two-semester sequence in which normal human anatomy and physiology are studied using a body system approach with emphasis on the interrelationships between form and function at the gross and microscopic levels of organization. Instructional delivery is within a classroom and laboratory setting. Experimentation within a science lab includes analysis of cellular metabolism and the individual components of body systems such as the nervous, neuromuscular, cardiovascular, and urinary. Continued examination of homeostatic mechanisms and their relationship to fluid, electrolyte, acid-base balance, and blood. Integration of genetics to human reproduction and development are also included in this course.

*Prerequisite: General Anatomy & Physiology 10806177 with a grade of "C" or better*

## 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.*

## English Composition 1

**10801136 .....3 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.*

## General Anatomy & Physiology

**10806177..... 4 credits**

Examines basic concepts of human anatomy and physiology as they relate to health sciences. Using a body systems approach, the course emphasizes the interrelationships between structure and function at the gross and microscopic levels of organization of the entire human body. It is intended to prepare health care professionals who need to apply basic concepts of whole body anatomy and physiology to informed decision making and professional communication with colleagues and patients.

*Prerequisite: High School GPA of 3.0 or Accuplacer Reading Skills of 236 or ACT of 15, or General Chemistry 10806134 with a grade of "C" or better, or General Biology 10806114 with a grade of "C" or better, or Human Body in Health & Disease 10509102 with a "C" or better. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.*

## Intro to Psychology

**10809198 .....3 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.*

## Intro to Sociology

**10809196 .....3 credits**

Introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions of family, politics, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, and social organization.

*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.*

## Introduction to Diversity Studies

**10809172.....3 credits**

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored.

*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.*

## Microbiology

**10806197..... 4 credits**

Examines microbial structure, metabolism, genetics, growth, and the relationship between humans and microorganisms. Disease production, epidemiology, host defense mechanisms, and the medical impact of microbes in the environment, industry, and biotechnology are also addressed.

*Prerequisite: General Anatomy & Physiology 10806177 with a "C" or better, or General Biology 10806114 with a "C" or better, or Plant Biology 10806184 with a grade of "C" or better*

## Nursing Advanced Skills

**10543112..... 1 credit**

Focuses on the development of advanced clinical skills across the lifespan. Includes advanced intravenous skills, blood product administration, chest tube systems, basic electrocardiogram interpretation, and nasogastric/feeding tube insertion.

*Prerequisites: Health Alterations 10543105, Nursing Health Promotion 10543106, Clinical Care Across the Lifespan 10543107, and Intro to Clinical Care Management 10543108; Corequisites: Nursing: Complex Health Alterations 10543109, Nursing: Mental Health and Community Concepts 10543110*

# course descriptions

## Nursing Fundamentals

### 10543101 .....2 credits

Focuses on basic nursing concepts to provide evidenced-based care to diverse patient populations across the lifespan. Current and historical issues impacting nursing are explored within the scope of nursing practice. Introduces the nursing process as a framework for organizing the care of patients.

*Prerequisite: Successful completion of all Step 2 Nursing program required courses and space availability; Nursing Assistant 30543300*

## Nursing Health Alterations

### 10543105 .....3 credits

Elaborates on the basic concepts of health and illness as presented in Nursing Fundamentals. Applies theories of nursing in the care of patients through the lifespan, using problem solving and critical thinking. Provides an opportunity to study conditions affecting different body systems and apply evidence-based nursing interventions. Also introduces concepts of leadership and management.

*Prerequisites: Nursing Fundamentals 10543101, Nursing Skills 10543102, Nursing Pharmacology 10543103, and Intro to Clinical 10543104*

## Nursing Health Promotion

### 10543106 .....3 credits

Focuses on topics related to health promotion for individuals and families throughout the lifespan. Covers nursing care of the developing family, including reproductive issues, pregnancy, labor and delivery, post-partum, the newborn, and the child. Recognizing the spectrum of healthy families, students discern patterns associated with adaptive and maladaptive behaviors applying mental health principles. Emphasizes teaching and supporting healthy lifestyle choices for individuals of all ages. Nutrition, exercise, stress management, empowerment, and risk reduction practices are highlighted. Study of the family covers dynamics, functions, discipline styles, and stages of development.

*Prerequisites: Nursing Fundamentals 10543101, Nursing Skills 10543102, Nursing Pharmacology 10543103, and Intro to Clinical Practice 10543104*

## Nursing Introduction to Clinical Care Management

### 10543108 .....2 credits

Applies nursing concepts and therapeutic nursing interventions to groups of clients across the lifespan. Provides an introduction to leadership, management, and team building.

*Prerequisites: Nursing Fundamentals 10543101, Nursing Skills 10543102, Nursing Pharmacology 10543103, and Intro to Clinical Practice 10543104; Corequisite: Nursing Health Alterations 10543105*

## Nursing Introduction to Clinical Practice

### 10543104 .....2 credits

This introductory clinical course emphasizes basic nursing skills and application of the nursing process in meeting the needs of diverse clients across the lifespan. Emphasis is placed on performing basic nursing skills, the formation of nurse-client relationships, communication, data collection, documentation, and medication administration.

*Prerequisite: Successful completion of all Step 2 Nursing program required courses and space availability; Corequisites: Nursing Fundamentals 10543101, Nursing Skills 10543102, and Nursing Pharmacology 10543103*

## Nursing Pharmacology

### 10543103.....2 credits

Introduces the principles of pharmacology, including drug classifications and their effects on the body. Emphasizes the use of the components of the nursing process when administering medications.

*Prerequisite: Successful completion of all Step 2 Nursing program required courses and space availability.*

## Nursing Skills

### 10543102.....3 credits

Focuses on development of evidence-based clinical skills and physical assessment across the lifespan. Includes mathematical calculations and conversions related to clinical skills. Teaches techniques related to obtaining a health history and basic physical assessment skills using a body systems approach.

*Prerequisite: Successful completion of all Step 2 Nursing program required courses and space availability; Nursing Assistant 30543300*

## Nursing: Advanced Clinical Practice

### 10543115.....3 credits

This advanced clinical course requires the student to integrate concepts from all previous courses in the management of groups of clients facing complex health alterations. Students have the opportunity to further develop critical thinking skills using the nursing process in making clinical decisions. Emphasizes continuity of care through interdisciplinary collaboration.

*Prerequisites: Complex Health Alterations 1 10543109, Mental Health & Community Concepts 10543110, Intermediate Clinical Practice 10543111, and Nursing Advanced Skills 10543112; Corequisites: Nursing: Complex Health Alterations 2 10543113 and Nursing: Management and Professional Concepts 10543114*

## Nursing: Clinical Care Across the Lifespan

### 10543107.....2 credits

Applies nursing concepts and therapeutic interventions to clients across the lifespan. Provides an introduction to concepts of teaching and learning, and emphasizes extending care to include the family.

*Prerequisites: Nursing Fundamentals 10543101, Nursing Skills 10543102, Nursing Pharmacology 10543103, and Intro to Clinical Practice 10543104; Corequisite: Nursing Health Promotion 10543106*

## Nursing: Clinical Transition

### 10543116 .....2 credits

This clinical experience integrates all knowledge learned in the previous courses in transitioning to the role of the graduate nurse. Promotes relatively independent clinical decisions, delegation, and working collaboratively with others to achieve client and organizational outcomes. Fosters continued professional development.

*Corequisite: Advanced Clinical Practice 10543115*

## **Nursing: Complex Health Alterations 1**

**10543109 .....3 credits**

Prepares the student to provide and evaluate care for patients across the lifespan with alterations in cardiovascular, respiratory, endocrine, and hematologic systems. Also focuses on patients with fluid/electrolyte and acid-base imbalance as well as alterations in comfort.

*Prerequisites: Health Alterations 10543105, Nursing Health Promotion 10543106, Clinical Care Across the Lifespan 10543107, and Intro to Clinical Care Management 10543108*

## **Nursing: Complex Health Alterations 2**

**10543113.....3 credits**

Prepares students to provide and evaluate care for patients across the lifespan with alterations in the immune, neuro-sensory, musculoskeletal, gastrointestinal, hepatobiliary, renal/urinary, reproductive systems and shock, burns, and trauma. Includes a focus on managing care for patients with high-risk perinatal conditions and high-risk newborns.

*Prerequisites: Complex Health Alterations 1 10543109, Mental Health & Community Concepts 10543110, Intermediate Clinical Practice 10543111, and Advanced Skills 10543112*

## **Nursing: Intermediate Clinical Practice**

**10543111 .....3 credits**

This intermediate-level clinical course develops the RN role when working with clients with complex health care needs. Includes developing skills needed for managing multiple clients and priorities. Using the nursing process, students gain experience in adapting nursing practice to meet the needs of clients with diverse needs and backgrounds.

*Prerequisites: Health Alterations 10543105, Nursing Health Promotion 10543106, Clinical Care Across the Lifespan 10543107, and Intro to Clinical Care Management 10543108; Corequisites: Complex Health Alterations 10543109, Mental Health and Community Concepts 10543110, and Advanced Skills 10543112*

## **Nursing: Management and Professional Concepts**

**10543114 .....2 credits**

Covers nursing management and professional issues related to the role of the registered nurse. Emphasizes preparing for practice as a registered nurse.

*Prerequisites: Complex Health Alterations 1 10543109, Mental Health & Community Concepts 10543110, Intermediate Clinical Practice 10543111, and Advanced Skills 10543112*

## **Nursing: Mental Health and Community Concepts**

**10543110 .....2 credits**

Covers topics related to the delivery of community and mental health care. Specific health needs of individuals, families, and groups are addressed across the lifespan. Attention is given to diverse and at-risk populations. Mental health concepts concentrate on adaptive/maladaptive behaviors and specific mental health disorders. Community resources are examined in relation to specific types of support offered to racial, ethnic, economically diverse individuals and groups.

*Prerequisites: Health Alterations 10543105, Nursing Health Promotion 10543106, Clinical Care Across the Lifespan 10543107, and Intro to Clinical Care Management 10543108*

## **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 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.*

## **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. 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.*



# nursing assistant

## Technical Diploma Program Code: 30-543-1 Total Credits: 3

The Nursing Assistant program at Mid-State provides hands-on learning that prepares students to assist in the care of patients in hospitals, extended care facilities, and home care situations. This 120-hour program includes online learning, campus lab experiences, and a 40-hour clinical practicum working with patients and residents. Skills labs ensure students have opportunities to practice skills under the supervision of experienced professionals. Personal care and emotional support of patients are always primary considerations. Upon completion of the course, students may choose to take the state certification exam.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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
- Background Information Disclosure (BID) Form
- \$15 or Current Criminal Background Check
- Out-of-State Background Check (if you have lived outside of the State of Wisconsin in the last three years)
- Nursing Assistant Online Orientation & Quiz (good for 90 days)
- Technical Standards Form
- Other: \_\_\_\_\_  
\_\_\_\_\_

**mstc.edu**  
**888.575.6782**



**ADAMS CAMPUS**  
401 North Main  
Adams, WI 53910

**MARSHFIELD CAMPUS**  
2600 West 5th Street  
Marshfield, WI 54449

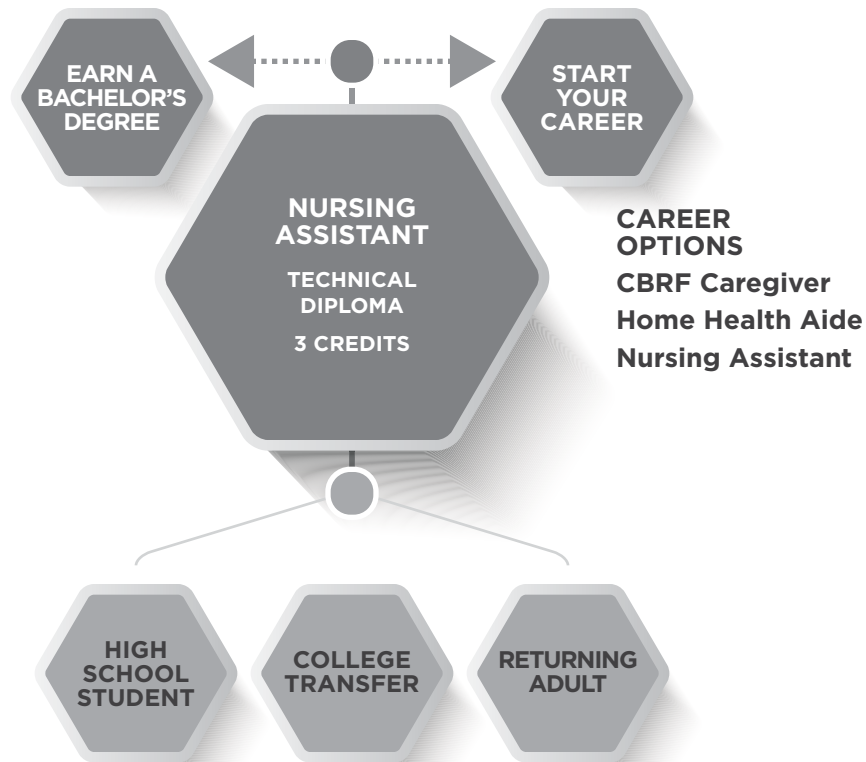
**STEVENS POINT CAMPUS**  
1001 Centerpoint Drive  
Stevens Point, WI 54481

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



## BACHELOR'S DEGREE OPTIONS

For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).



College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
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## OTHER OPTIONS

### RELATED PROGRAMS

- Central Service Technician
- Health Information Management
- Health & Wellness Promotion
- Medical Assistant
- Medical Coder
- Nursing
- Pharmacy Services Management
- Pharmacy Technician
- Phlebotomy Technician
- Respiratory Therapy
- Surgical Technologist

## PROGRAM OUTCOMES

Employers will expect you, as a Nursing Assistant graduate, to be able to:

- Communicate and interact effectively with clients, families, and co-workers.
- Maintain and protect client rights.
- Report information and record observations.
- Demonstrate the ethical and legal responsibilities of the NA/HHA.
- Provide safe care to a diverse population, meeting personal, physical, and psychosocial client needs.
- Assist with client rehabilitation and restorative care, promoting independence.
- Assist clients with long-term, disabling conditions including dementia, always focusing on the strengths of the client.
- Work cooperatively in a team environment.
- Be eligible to take the WI NA Competency evaluation.

**Note:** Outcomes for the Nursing Assistant program are state and federally mandated.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Nursing Assistant students will fulfill the TSA requirement with successful completion of the Nursing Assistant course.

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The Mid-State Technical College Nursing Assistant program is accredited by the Wisconsin Department of Health Services (DHS) Bureau of Quality Assurance.

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## ADDITIONAL ENTRY CRITERIA

To apply to the Nursing Assistant program, please submit the following documents to Mid-State Admissions:

GPA of 2.6 as a high school junior or above.

Complete a Background Information Disclosure (BID) form and submit \$15 Caregiver Background check. The Wisconsin Caregiver Law requires a background check.

Must be at least 16 years of age.

After satisfactorily completing above steps, complete an online information session and accompanying quiz found on the Nursing Assistant accepted student website. In the information session, students learn about the profession, academic requirements of the program, and the impact of program coursework on one's personal life. Once a student has completed the steps above, he/she is then able to register for the Nursing Assistant course.

**Mid-State Technical College • Admissions**  
**500 32nd Street North, Wisconsin Rapids, WI 54494**

Upon completion of the nursing assistant course, students must pass a state certification exam to become a certified nursing assistant (CNA). Appropriate proof of identity will be required by the certification testing agency.

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as a nursing assistant is available at [mstc.edu/programs/nursing-assistant](http://mstc.edu/programs/nursing-assistant). Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## CLINICAL-RELATED REQUIREMENTS

Prior to placement at a clinical site, students need to pay for a criminal background check and provide documentation of required health work.

Clinical sites have the right to refuse a student's placement based on inadequate health records, pending charges, or conviction records. Students with a criminal history may not be able to complete clinical courses. Mid-State will make two attempts to place a student in an appropriate clinical experience. If Mid-State is unable to place the student after two attempts, the student will be withdrawn from the course and will not be able to advance in the program.

Prior to beginning a clinical experience in a health care facility, students must:

- a. Submit evidence of completed health work.
- b. Obtain the required uniform for clinical experiences.
- c. Accept responsibility for clinical assignment(s) regardless of time and location, including transportation and other personal arrangements.

## PROGRAM PROGRESSION

In order to successfully complete the program, students must receive a "C" or better in the Nursing Assistant course 30543300.

## CERTIFICATION

The Department of Health Services Bureau of Quality Assurance requires that students who successfully pass the Nursing Assistant program take a state certification exam to qualify them to be listed in the state and federal nurse aide registries. Information to apply for this certification exam will be provided to students during their Nursing Assistant course. Nursing assistants must be listed on the state and federal nurse aide registries to be eligible to work in Wisconsin. Appropriate proof of identity will be required by the certification testing agency.

## ADDITIONAL OPTIONS

- The Nursing Assistant-Acute Care course (10543173) expands the skill set of the nursing assistant. Prerequisite: completion of a 120-hour state approved nurse aide training program or current certification on the Wisconsin Nurse Aide registry. This course is a requirement for the Associate Degree Nursing program.
- Nursing Assistant program is a prerequisite for admission to the Nursing program.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## SAMPLE FULL-TIME CURRICULUM OPTION

<b>Term</b>	<b>(3 credits)</b>
30543300 Nursing Assistant	3
<b>Total Credits 3</b>	

Please Note:

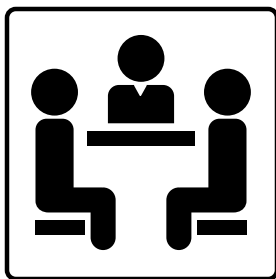
- This curriculum sequence is only for student planning. Actual student schedules will vary depending on course availability.
- Program completion time may vary based on student scheduling and course availability. For details, go to [mstc.edu/classfinder](http://mstc.edu/classfinder).

## course descriptions

### Nursing Assistant

**30543300.....3 credits**

The Nursing Assistant program prepares students for employment as nursing assistants. The program also prepares Nursing Assistant students with some of the skills needed for the first semester of the Nursing program. During this 120-hour course, students are required to demonstrate the following skills under the supervision of a licensed nurse: communication, basic nursing assistant and personal care skills, attention to clients' rights, and care of clients with dementias. The program is recognized by the Wisconsin Department of Health Services as a nurse-aide training program. Upon successful completion of the program, students are eligible to take the Wisconsin Nursing Assistant competency evaluation for employment in nursing homes, hospitals, home health agencies, hospices, CBRFs, assisted living centers, and homes for the developmentally disabled. *Prerequisite: Admission to Nursing Assistant program 305431 and Nursing Assistant Checklist within last 3 months*



# office support specialist

## Technical Diploma Program Code: 31-106-8 Total Credits: 32

Mid-State's Office Support Specialist program develops students into key members of an office team. The program emphasizes document preparation and the effective use of personal interactions and ever-changing technology to support your role as the central communications link in an office. You'll experience hands-on learning through the organization of high-profile events. You'll also learn to handle multiple projects and deadlines, manage time, solve problems, and be helpful in nature—all in high demand by employers.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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: \_\_\_\_\_  
\_\_\_\_\_

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**888.575.6782**



**ADAMS CAMPUS**  
401 North Main  
Adams, WI 53910

**MARSHFIELD CAMPUS**  
2600 West 5th Street  
Marshfield, WI 54449

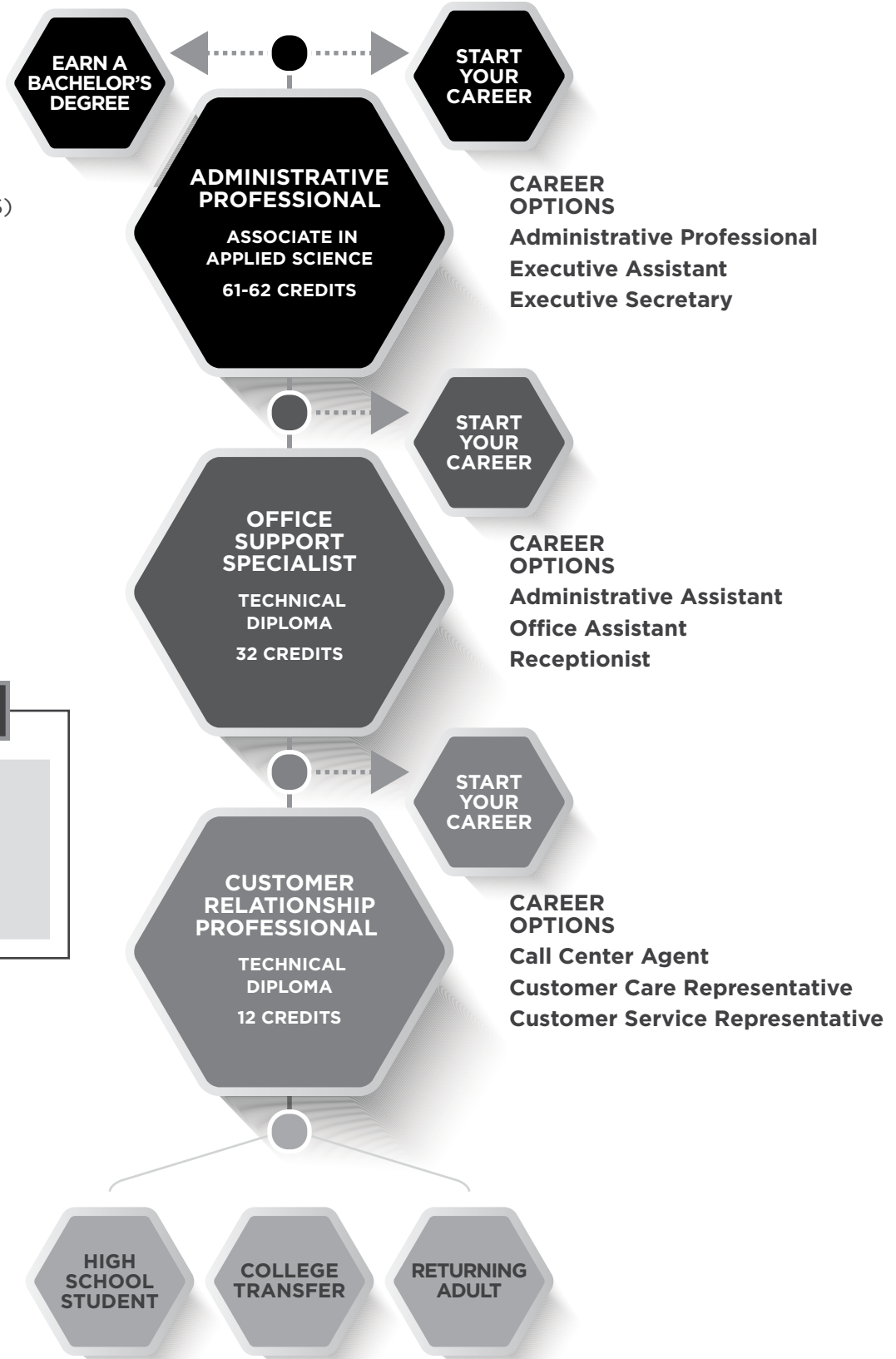
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Stevens Point, WI 54481

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

**BACHELOR'S DEGREE OPTIONS**

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

**For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**OTHER OPTIONS**

**RELATED PROGRAMS**

- Business Management
- Entrepreneurship
- Human Resources Assistant
- Leadership Development
- Project Management

**College Credit • Dual Credit • Military Experience • Work Experience**  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## PROGRAM OUTCOMES

Employers will expect you, as an Office Support Specialist graduate, to be able to:

- Perform accurate workplace communications.
- Use technology skills for business tasks.
- Perform routine office procedures.
- Demonstrate professionalism and effective workplace relationships.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Office Support Specialist program outcomes are measured in the TSA-designated course Administrative Office Procedures.

## PROGRAM PROGRESSION

In order to maintain a passing status and progress in the program, students must:

- Receive a grade of “C” or better in Administrative Office Procedures.

## MOBILE DEVICE ENHANCEMENT

To support your hands-on learning and give you an edge in today’s digital workplace, Office Support Specialist program students are required to purchase an iPad device. Students accepted into the program will receive specific details about purchasing the mobile device (financial aid available).

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State’s student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State’s Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

**10890102 ..... 1 credit**

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 .....2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 .....3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 .....3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of “S.” (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*



# course descriptions

## Administrative Office Procedures

**10106150 .....3 credits**

Develops professional skills and attitudes needed in a global business environment. Skills include time management, problem solving, and decision making while working independently and as part of a team. Tasks such as electronic mail, calendaring, meeting and event planning, domestic and international travel, and project management and minute-taking are included. Familiarity with office machines is required.

*Corequisites: English Composition 1 10801136 and Microsoft Office-Introduction 10103106*

## Business Information Management

**10106140 .....3 credits**

Following commonly-used ARMA rules, the student applies basic filing methods to paper and database filing systems. Methods to permanently archive data are also covered.

*Corequisite: Microsoft Office-Introduction 10103106*

## Digital Communication Technology

**10106172 .....3 credits**

Introduces the student to digital and communication technology used in the office today, including digital cameras, digital video cameras, video conferencing, web conferencing, and multimedia presentations. The content focuses on understanding communication technologies and how they impact employees.

*Corequisite: Microsoft Office-Introduction 10103106*

## Document Formatting

**10106157 .....3 credits**

Students are able to format styles of business letters, business and academic reports, memos, tables, business meeting documents, itineraries, legal documents, and business forms. Also includes drill work for improving keying speed and accuracy. Minimum typing speed of 30 wpm required (alphabetic keys only).

*Corequisite: Microsoft Office-Introduction 10103106*

## English Composition 1

**10801136 .....3 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 10831103 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.*

## Excel Applications

**10103125 .....2 credits**

Learners will expand on basic Excel skills including managing multiple workbooks and worksheets using 3D references, links, and hyperlinks. They will also learn to summarize and analyze data using subtotals, PivotTables, PivotCharts, Goal Seek, Solver and Scenario Manager tools. This course teaches students to gather data and turn it into

meaningful information used for business decision-making.

*Prerequisites: Microsoft Office Introduction 10103106 or Excel Beginning 10103123*

## Introduction to Diversity Studies

**10809172 .....3 credits**

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored.

*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.*

## Microsoft Office-Introduction

**10103106 .....3 credits**

Develops introductory skills in the Microsoft Office Suite (Word, Excel, Access, PowerPoint, and Outlook) while reinforcing the students' knowledge of computer concepts, Windows Explorer, and web usage. Students should possess basic keyboarding, mouse and Windows 10 skills. Students may develop these skills in the LiNK while concurrently enrolled in this course.

## 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 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.*

## Proofreading & Editing

**10106158 .....2 credits**

Sharpens proofreading and editing skills. Competencies include detecting and editing errors in keying, spelling, capitalization, plurals, possessives, punctuation, numbers, grammar, sentence structure, and formatting. Documents are edited for clarity, conciseness, and completeness.

*Corequisite: Microsoft Office-Introduction 10103106*

## Quality Customer Service

**10106106 .....3 credits**

Addresses sensitivity in communicating with customers and co-workers. Includes international communications, teamwork, working relationships, and telephone skills.

## Word-Intermediate

**10103114 .....1 credit**

Students learn to create more complex documents using Microsoft Word as well as customize the Word environment. Students also learn to use mail merge, macros, collaborate with others, and combine information into one file.

*Prerequisite: Microsoft Office-Introduction 10103106 or Word-Beginning 10103113*





# paramedic technician

## Associate in Applied Science (AAS) Program Code: 10-531-1 Total Credits: 66

Mid-State's Paramedic Technician program prepares students with the knowledge and skills to work competently as an entry-level paramedic. In this associate degree program, students will complete two semesters of general studies as well as two semesters of core paramedic courses in a joint cohort with students in the EMT-Paramedic program. You will learn prehospital skills in the classroom, skills laboratory, hospital, and prehospital settings. Upon successful completion, you will earn certifications in Advanced Cardiac Life Support, Prehospital Trauma Life Support, and Pediatric Advanced Life Support and be eligible to take the National Registry written and practical examinations.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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
- Criminal Background Statement of Understanding and Release of Information Form
- 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

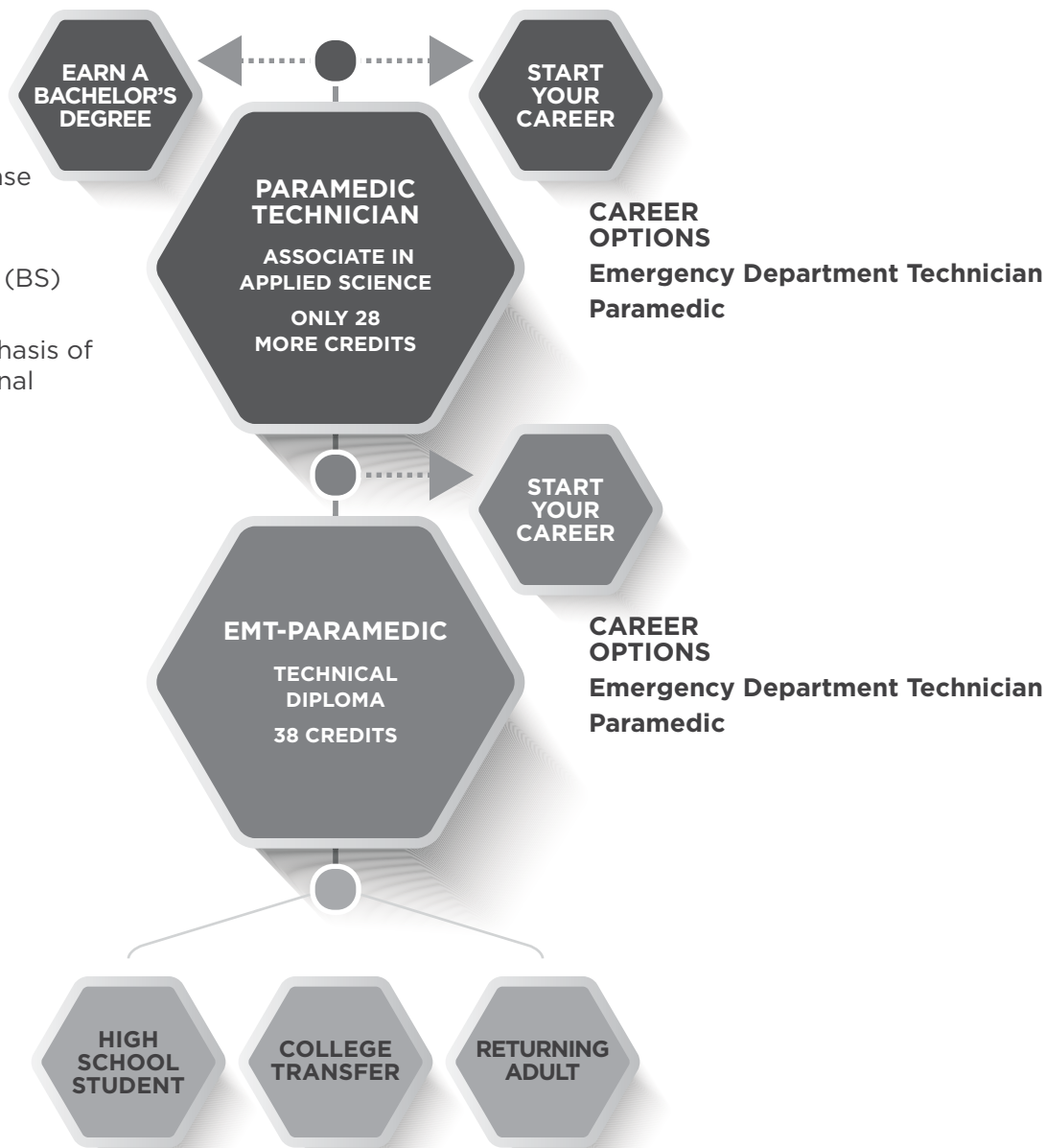
UW-Oshkosh,  
Fire and Emergency Response  
Management (BAS)

UW-Oshkosh,  
Human Services Leadership (BS)

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

UW-Stevens Point,  
Health Science-Health Care  
Administration Option (BS)

**For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**College Credit • Dual Credit • Military Experience • Work Experience**  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Corrections & Community Advocacy
- Criminal Justice-Law Enforcement 720 Academy
- Criminal Justice-Studies
- Emergency Medical Technician
- Emergency Services Management
- Fire Protection Technician

## PROGRAM OUTCOMES

Employers will expect you, as a Paramedic Technician graduate, to be able to:

- Prepare for incident response and EMS operations.
- Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
- Demonstrate paramedic skills associated with established standards and procedures for a variety of patient encounters
- Communicate effectively with others.
- Demonstrate professional behavior.
- Meet state and national competencies listed for paramedic credentialing.

Paramedic Technician is based upon the US Department of Transportation Administration/Wisconsin Bureau Local Health Support and EMS curriculum.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students will fulfill the TSA requirements when they complete the clinical and field courses.

## ADDITIONAL ENTRY CRITERIA

To apply to the Paramedic Technician program, please submit the following document to Mid-State Admissions:

### Step 1:

Criminal Background Statement of Understanding and Release of Information form.

**Mid-State Technical College • Admissions  
500 32nd Street North, Wisconsin Rapids, WI 54494**

***Completion of step 1 requirements allows the student to begin general education courses.***

If you are taking Emergency Medical Technician program courses as part of the Paramedic Technician program, you must apply to Emergency Medical Technician program (30-531-3) separately. Although the Emergency Medical Technician program is part of the curriculum, it is handled as a stand-alone program for admission purposes.

### Step 2:

Submit a current Wisconsin EMT license.

**Mid-State Technical College • Admissions  
500 32nd Street North, Wisconsin Rapids, WI 54494**

***Completion of the Step 2 requirement will make the student eligible for entry into the Paramedic core courses. Completion of Step 2 does not guarantee entry into the next available cohort of core program students. Cohorts are filled on a first-eligible, first-served basis.***

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as a paramedic technician is available at [mstc.edu/programs/paramedic-technician](http://mstc.edu/programs/paramedic-technician). Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## CLINICAL-RELATED REQUIREMENTS

Prior to placement at a clinical site, students need to pay for a criminal background check through a private vendor. Students will be required to provide documentation of required health work and current healthcare provider CPR certification via a Blackboard assignment. Students are responsible for ensuring all requirements remain current during program enrollment.

Clinical sites have the right to refuse a student's placement based on inadequate health records, pending charges, or conviction records. Students with a criminal history may not be able to complete clinical courses. Mid-State will make two attempts to place a student in an appropriate clinical experience. If Mid-State is unable to place the student after two attempts, the student will be withdrawn from the course and will not be able to advance in the program.

Prior to beginning a clinical experience in a healthcare agency or ambulance service, students must:

- a. Provide evidence of completion of the required health work.
- b. Hold a current State of Wisconsin EMT license.
- c. Hold a Department of Health Services EMS Training Center Training Permit at the paramedic level.
- d. Provide evidence of current CPR at the health care professional level by a CPR organization specified under s. DHS 110.17(1).
- e. Obtain the required uniform for clinical experiences.
- f. Assume responsibility for clinical assignment(s) regardless of time and location, including transportation and other personal arrangements.

## PROGRAM PROGRESSION

In order to progress in and complete the program, students must receive a grade of "C" or better in each of the paramedic core courses. Failure to obtain a grade of "C" in any core course will prevent a student from progressing on to the next course in the sequence until they have retaken the course and achieved a grade of "C" or better.

All general education courses must be completed with a grade of "C" or better in order to be eligible for graduation.

Having to retake a core course will require removal from the student's cohort, and placement will be made in the next cohort with an available seat.

This requirement also applies to the last class in the sequence, as the grade of "C" or better is required in all core courses in order to retain eligibility to take the National Registry exam.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

#### 10890102 ..... 1 credit

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

#### 10838104 ..... 2 credits

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

#### 10831103 ..... 3 credits

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

#### 10834109 ..... 3 credits

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10531940	EMT Foundations	3
10801136	English Composition 1	3
10806177	General Anatomy & Physiology	4
10809122	Intro to American Government <b>-or-</b>	
10809172	Introduction to Diversity Studies <b>-or-</b>	
10809196	Intro to Sociology	3
10809198	Intro to Psychology	3

Term		12 credits
10531941	EMT Applications	2
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801197	Technical Reporting <b>-or-</b>	
10801198	Speech	3
10804107	College Mathematics	3
10806134	General Chemistry <b>-or-</b>	
10806179	Advanced Anatomy & Physiology	4

Term		20 credits
10531911	EMS Fundamental	2
10531912	Paramedic Medical Principles	4
10531913	Patient Assessment Principles	3
10531914	Prehospital Pharmacology	3
10531915	Paramedic Respiratory Management	2
10531917	Paramedic Clinical/Field 1	3
10531918	Advanced Resuscitation	1
10531955	Paramedic Cardiology 1	2

Term		18 credits
10531919	Paramedic Medical Emergencies	4
10531920	Paramedic Trauma	3
10531921	Special Patient Populations	3
10531922	EMS Operations	1
10531923	Paramedic Capstone	1
10531956	Paramedic Cardiology 2	2
10531957	Paramedic Field Experience	3
10531958	Paramedic Field Leadership	1

**Total credits 66**

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](http://mstc.edu/classfinder).

## Advanced Anatomy & Physiology

**10806179..... 4 credits**

The second semester in a two-semester sequence in which normal human anatomy and physiology are studied using a body system approach with emphasis on the interrelationships between form and function at the gross and microscopic levels of organization. Instructional delivery is within a classroom and laboratory setting. Experimentation within a science lab includes analysis of cellular metabolism and the individual components of body systems such as the nervous, neuromuscular, cardiovascular, and urinary. Continued examination of homeostatic mechanisms and their relationship to fluid, electrolyte, acid-base balance, and blood. Integration of genetics to human reproduction and development are also included in this course.

*Prerequisite: General Anatomy & Physiology 10806177 with a grade of "C" or better*

## Advanced Resuscitation

**10531918..... 1 credit**

By teaching advanced cardiac life support (ACLS) and pediatric advanced life support (PALS) methodologies and protocols, this course prepares the paramedic student to integrate comprehensive knowledge of causes and pathophysiology into the management of shock, respiratory failure, respiratory arrest, cardiac arrest, and peri-arrest states. Emphasizes early intervention to prevent respiratory and/or cardiac arrest if possible.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## College Mathematics

**10804107 .....3 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.*

## EMS Fundamental

**10531911 .....2 credits**

Provides the paramedic student with comprehensive knowledge of EMS systems, safety, well-being, legal issues, and ethical issues, with the intended outcome of improving the health of EMS personnel, patients, and the community. Students obtain fundamental knowledge of public health principles and epidemiology as related to public health emergencies, health promotion, and illness/injury prevention. Introduces students to comprehensive anatomical and medical terminology and abbreviations with the aim of fostering the development of effective written and oral communications with colleagues and other healthcare professionals.

*Prerequisites: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311 and Wisconsin Emergency Medical Technician (or higher) license*

## EMS Operations

**10531922 ..... 1 credit**

Provides paramedic students with the knowledge of operational roles and responsibilities to ensure patient, public, and EMS personnel safety.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## EMT Applications

**10531941.....2 credits**

Course covers the bulk of the Emergency Medical Technician certification course to include the handling of cervical and spine injuries, burn injuries, heart- and breathing-related problems, shock, and other trauma injuries. Includes several lab days to practice and perfect skills, clinical time, and extensive hands-on activities. Prepares students for national certification testing for EMT. To maintain National Registry certification eligibility this course must be finished the semester following the completion of EMT Foundations.

*Prerequisite: EMT Foundations 10531940*

## EMT Foundations

**10531940 .....3 credits**

Covers the basics of the Emergency Medical Technician certification course to include CPR, airways, anatomy, hazmat response requirements, lifting and moving patients, incident command, and other technical information. It is the first part of a two-course system to prepare students for national certification testing for EMT.

*Prerequisite: Admission to Paramedic Technician program 105311 OR Emergency Medical Technician program 305313 OR Fire Protection Technician program 105032*

## English Composition 1

**10801136 .....3 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.*

## General Anatomy & Physiology

**10806177 ..... 4 credits**

Examines basic concepts of human anatomy and physiology as they relate to health sciences. Using a body systems approach, the course emphasizes the interrelationships between structure and function at the gross and microscopic levels of organization of the entire human body. It is intended to prepare health care professionals who need to apply basic concepts of whole body anatomy and physiology to informed decision making and professional communication with colleagues and patients.

*Prerequisite: High School GPA of 3.0 or Accuplacer Reading Skills of 236 or ACT of 15, or General Chemistry 10806134 with a grade of "C" or better, or General Biology 10806114 with a grade of "C" or better, or Human Body in Health & Disease 10509102 with a "C" or better. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.*

## General Chemistry

**10806134 ..... 4 credits**

Covers the fundamentals of chemistry. Topics include the metric system; problem solving; periodic relationships; chemical reactions, chemical equilibrium; properties of water; acids, bases, and salts; and gas laws. High School GPA of 3.0 or Accuplacer QAS of 246 or ACT of 19, and College Mathematics 10804107 with a "C" or better, or Intermediate Algebra with Applications 10804118 with a "C" or better. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.

## Intro to American Government

**10809122.....3 credits**

Introduces American political processes and institutions. Focuses on rights and responsibilities of citizens and the process of participatory democracy. Learners examine the complexity of the separation of powers and checks and balances. Explores the role of the media, interest groups, political parties, and public opinion in the political process. Also explores the role of state and national government in our federal system.

*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 Psychology

**10809198 .....3 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.*

## Intro to Sociology

**10809196 .....3 credits**

Introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions of family, politics, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, and social organization.

*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.*

## Introduction to Diversity Studies

**10809172.....3 credits**

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored.

*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.*

## 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 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.*

## Paramedic Capstone

**10531923 ..... 1 credit**

Provides students with a final opportunity to incorporate their cognitive knowledge and psychomotor skills through labs and scenario-based practice and evaluations prior to taking the National Registry written and practical examinations. Technical skills attainment (TSA) for each student will be compiled and/or documented within this course as required by the DHS-approved paramedic curriculum.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## Paramedic Cardiology 1

**10531955** .....2 credits

Provides basic knowledge to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment for the patient with cardiovascular disease.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## Paramedic Cardiology 2

**10531956** .....2 credits

Teaches the paramedic student knowledge and skills to integrate assessment findings with principles of cardiovascular anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a variety of cardiovascular complaints.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## Paramedic Clinical/Field 1

**10531917** .....3 credits

Enhances student learning through the practice of paramedicine in field and healthcare environment experiences with actual patients under the supervision of instructors or approved preceptors. Students may also have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course.

*Prerequisites: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311, Advanced Prehospital Pharmacology 10531914, and a current Wisconsin license at the Emergency Medical Technician (or higher) level*

## Paramedic Field Experience

**10531957** .....3 credits

Provides the opportunity to enhance learning through the practice of paramedicine in a field environment and through experiences with actual patients under the supervision of instructors or approved preceptors. Students may also have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course. Successful completion of this course requires the student to meet all clinical and field competency requirements at the paramedic level as defined by WI DHS EMS.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## Paramedic Field Leadership

**10531958** .....1 credit

Provides the opportunity to act as the field team leader in a field environment and through experiences with actual patients under the supervision of instructors or approved preceptors. Successful completion of this course requires the student to meet all team leader competency requirements at the paramedic level as defined by WI DHS EMS and the CoAEMSP.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## Paramedic Medical Emergencies

**10531919**..... 4 credits

Teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a medical complaint.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## Paramedic Medical Principles

**10531912**..... 4 credits

Addresses the complex depth of anatomy, physiology, and pathophysiology of major human systems while also introducing paramedic students to the topics of shock, immunology, and bleeding.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## Paramedic Respiratory Management

**10531915**.....2 credits

Teaches the paramedic student to integrate complex knowledge of anatomy, physiology, and pathophysiology into the assessment to develop and implement a treatment plan with the goal of assuring a patient airway, adequate mechanical ventilation, and respiration for patients of all ages. Also provides specific knowledge pertaining to the respiratory system to ensure the student is prepared to formulate a field impression and implement a comprehensive treatment plan for a patient with a respiratory complaint.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## Paramedic Trauma

**10531920**.....3 credits

Teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for an acutely injured patient.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## Patient Assessment Principles

**10531913**.....3 credits

Teaches the paramedic student to integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. Uses a structured and organized assessment process that draws on knowledge of anatomy, physiology, pathophysiology, life span development, and changes that occur to the human body with time. Using this process students learn to develop a list of differential diagnoses through clinical reasoning and modify the assessment as necessary to formulate a treatment plan for their patients.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## **Prehospital Pharmacology**

**10531914 .....3 credits**

Provides the paramedic student with the comprehensive knowledge of pharmacology required to formulate and administer a pharmacological treatment plan intended to mitigate emergencies and improve the overall health of the patient.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## **Special Patient Populations**

**10531921.....3 credits**

Teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for patients with special needs. Also includes gynecological emergencies, along with special considerations in trauma.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## **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. 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.*

## **Technical Reporting**

**10801197 .....3 credits**

The student prepares and presents oral and written technical reports. Types of reports may include lab and field reports, proposals, technical letters and memos, technical research reports, and case studies. Designed as an advanced communication course for students who have completed at least the prerequisite introductory writing course.

*Prerequisite: English Composition I 10801136 with a grade of "C" or better or Written Communication 10801195 with a grade of "C" or better. Proficiency in word processing skills recommended.*





# pharmacy services management

## Associate in Applied Science (AAS) Program Code: 10-536-1 Total Credits: 60

Graduates of Mid-State's Pharmacy Services Management program are prepared to advance their roles as pharmacy technicians or transition into other roles related to the pharmacy. Their skills and knowledge include third-party payment processing, staff scheduling processes, customer service, and enhancing store sales. In this program, you'll be introduced to business operations and apply what you've learned through a capstone course. This provides hands-on experience with increasing store sales, creating efficient operations, improving management practices, or enhancing service to patients in a real-life situation. Core program courses are offered via video conference hosted by Lakeshore Technical College (LTC) and are supported by select classes available with Mid-State.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

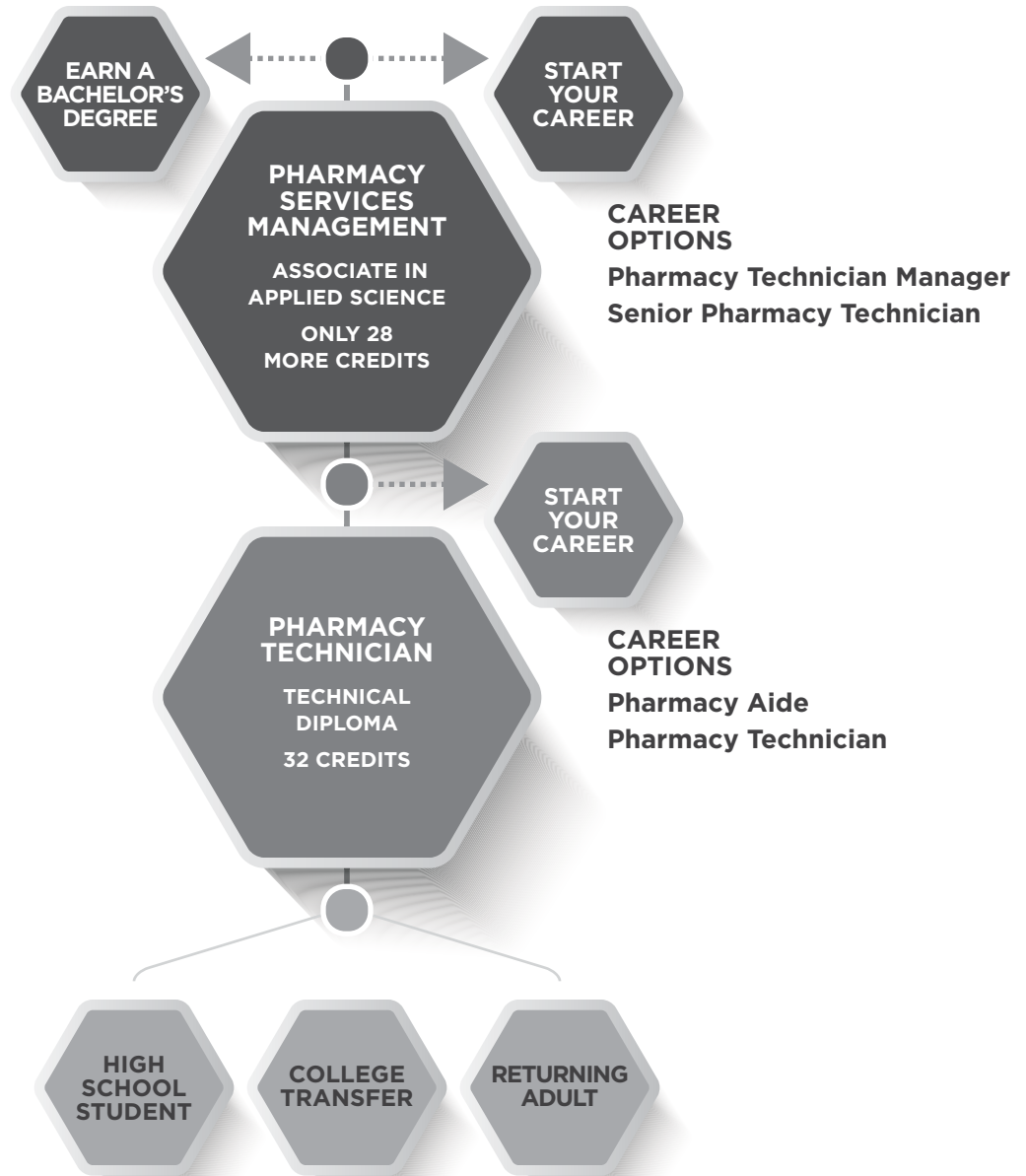
**MARSHFIELD CAMPUS**  
2600 West 5th Street  
Marshfield, WI 54449

**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

For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).



College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

## OTHER OPTIONS

### RELATED PROGRAMS

- Central Service Technician
- Health Information Management
- Health & Wellness Promotion
- Medical Assistant
- Medical Coder
- Nursing
- Nursing Assistant
- Phlebotomy Technician
- Respiratory Therapy
- Surgical Technologist

**BEGIN AT ANY POINT  
IN THE PATHWAY**



## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 .....2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 .....3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid.

This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 .....3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		18 credits
10501101	Medical Terminology	3
10501102	Health Insurance and Reimbursement*	3
10536110	Pharmaceutical Calculations*	3
10536113	Pharmacy Business Applications*	3
10536115	Pharmacy Law*	2
10536120	Fundamentals of Reading Prescriptions*	1
10536122	Pharmacology*	3

Term		14 credits
10536125	Pharmacy Drug Distribution Systems*	2
10536126	Pharmacy Parenteral Admixtures*	3
10536138	Pharmacy Community Clinical*	2
10536141	Pharmacy Computer Lab*	2
10536143	Pharmacy Hospital Clinical*	2
10801196	Oral/Interpersonal Communication	3

Term		16 credits
10103123	Excel-Beginning	1
10104102	Marketing Principles -or-	
10182108	Purchasing*	3
10801136	English Composition 1	3
10806112	Principles of Sustainability*	3
10809195	Economics	3
10809198	Intro to Psychology	3

Term		12 credits
10182102	Service Operations Management* -or-	
10102101	Introduction to Business	3
10196191	Supervision	3
10536150	Advanced Pharmacy Services Applications*	3
10809166	Intro to Ethics: Theory & Application -or-	
10809172	Introduction to Diversity Studies	3

**Total Credits 60**

*\*These courses are offered through Lakeshore Technical College but may be taken via Telepresence at Mid-State's Stevens Point campus.*

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](http://mstc.edu/classfinder).

## Advanced Pharmacy Services Applications

**10536150.....3 credits**

Allows the learner to integrate skills learned in the Pharmacy Services Management courses and apply them to the pharmacy workplace. Areas include staff training, development, supervision, and scheduling; customer service; PBM processing and claims rejection management; and improving efficiency of operations, maximizing profits, and increasing sales.

*Prerequisites: All courses in the Associate Degree plan need to be completed prior to this course.*

## Economics

**10809195 .....3 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.*

## English Composition 1

**10801136 .....3 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.*

## Excel-Beginning

**10103123.....1 credit**

Students learn to create, modify, and format spreadsheets, charts, and graphics. Students also learn to perform calculations and analysis on data.

## Fundamentals of Reading Prescriptions

**10536120.....1 credit**

Prepares the learner to work in a community or hospital pharmacy by exploring the role of a pharmacy technician within the healthcare team, examining each step in the prescription filling process, and identifying the key top 200 drugs by brand and generic name and therapeutic class.

*Condition: 315361 Pharmacy Technician admission requirements met*

## Health Insurance and Reimbursement

**10501102 .....3 credits**

Provides the learner with an understanding of the various types of insurance and managed care plans, and the cycle of medical claims procession. The learner will review cases, develop critical thinking skills in analyzing information, and selecting processes for reimbursement success.

## Intro to Ethics: Theory & Application

**10809166 .....3 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 Psychology

**10809198 .....3 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.*

## Introduction to Business

**10102101.....3 credits**

An introduction to what a business is, how it operates, and how it is managed. Students will identify forms of ownership and the processes used in production and marketing, finance, personnel and management in business operations.

## Introduction to Diversity Studies

**10809172.....3 credits**

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored.

*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.*

## Marketing Principles

**10104102.....3 credits**

This course serves as an introduction to the fundamental marketing concepts used to apply marketing strategies to product development, distribution, pricing, and promotion of goods and services.

## Medical Terminology

**10501101..... 3 credits**

Focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Learners practice formation, analysis, and reconstruction of terms. Emphasizes spelling, definition, and pronunciation. Introduces operative, diagnostic, therapeutic, and symptomatic terminology of all body systems as well as systemic and surgical terminology.

## 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 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.*

## Pharmaceutical Calculations

**10536110 .....3 credits**

Prepares the learner to enlarge and reduce formulas and solve proportions, dilutions, allegations, and other calculations pertinent to the preparation of pharmaceuticals using metric, apothecary, avoirdupois, and household measuring systems.

*Condition: 315361 Pharmacy Technician, 105361 Pharmacy Services Management, or 195316 Employed Pharmacy Technician admission requirements met*

## Pharmacology

**10536122 .....3 credits**

Enhances the learner's ability to act and react appropriately in the pharmacy by learning how drugs work through examination of the anatomy, physiology, pathophysiology, and drug therapy for each of the major systems.

*Condition: 315361 Pharmacy Technician, 105361 Pharmacy Services Management, 615361 Community Retail Pharmacy Technician, or 195361 Employed Pharmacy Technician admissions requirements met*

## Pharmacy Business Applications

**10536113.....3 credits**

Prepares the learner to utilize pharmaceutical business terminology, procedures, customer service, record keeping, purchasing procedures, inventory control systems, pricing, merchandising, reference materials, ethics, roles, responsibilities, and relationships with patients and coworkers.

*Condition: 315361 Pharmacy Technician or 105231 Pharmacy Services Management program requirements met*

## Pharmacy Community Clinical

**10536138 .....2 credits**

Provides hands-on experience in a community pharmacy for 108 hours during term two. Areas of instruction include interpretation of prescriptions, entering prescriptions on computer, patient profiles, correctly filling and labeling prescriptions, billing patient and third parties, customer service, over-the-counter medications, purchasing, checking in deliveries, inventory control, compounding, and patient confidentiality.

*Prerequisites: 10536110 Pharmaceutical Calculations, 10536120 Fundamentals of Reading Prescriptions, 10501102 Health Insurance & Reimbursement, 10536113 Pharmacy Business Applications; Condition: 315361 Pharmacy Technician, 105361 Pharmacy Services Management, or 615361 Community Retail Pharmacy Technician program requirements met*

## Pharmacy Computer Lab

**10536141.....2 credits**

Expands the learner's ability to enter prescription orders and familiarizes learner with a variety of pharmacy software features, including updating pharmacy databases, running reports, and billing. This course is offered in a self-paced format.

*Prerequisites: 10536120 Fundamentals of Reading Prescriptions; Condition: 315361 Pharmacy Technician or 105361 Pharmacy Services Management admissions requirements met*

## Pharmacy Drug Distribution Systems

**10536125 .....2 credits**

Is an introductory study of the basic drug distribution systems used in community and institutional pharmacies, including automation technology, pharmacist and pharmacy technician roles, and dispensing considerations.

*Condition: 315361 Pharmacy Technician or 105361 Pharmacy Services Management admissions requirements met*

## Pharmacy Hospital Clinical

**10536143.....2 credits**

Provides the learner with the skills to prepare parenteral admixtures, fill medication carts and unit-dose drawers, control inventory, package medications, and maintain patient records in the hospital setting.

*Prerequisites: 10536110 Pharmacy Calculations and Corequisite: 10536139 Pharmacy Community Clinical, 10536126 Pharmacy Parenteral Admixtures and 10536141 Pharmacy Computer Lab; Condition: 315361 Pharmacy Technician, or 105361 Pharmacy Services Management admissions requirements met*

## Pharmacy Law

**10536115.....2 credits**

Introduces the learner to federal and state regulations that apply to pharmacy practice.

*Condition: 315361 Pharmacy Technician, 105361 Pharmacy Services Management, or 195361 Employed Pharmacy Technician admissions requirements met*

## Pharmacy Parenteral Admixtures

**10536126 .....3 credits**

Provides the learner with the skills to utilize aseptic technique in vertical and horizontal laminar flow hoods for preparation of solutions and medications to be administered intravenously, intramuscularly, subcutaneously, and intradermally to patients.

*Prerequisite: 10536110 Pharmaceutical Calculations;*

*Condition: 315361 Pharmacy Technician, 105361 Pharmacy Services Management, or 195361 Employed Pharmacy Technician admission requirements met*

## Principles of Sustainability

**10806112 .....3 credits**

Prepares students to develop sustainable literacy, analyze interconnections among physical and biological sciences and environmental systems, summarize effects of sustainability on health and well-being, analyze connections among social, economic, and environmental systems, employ energy conservation strategies to reduce use of fossil fuels, investigate alternative energy options, evaluate options to current waste disposal/recycling in the U.S., and analyze approaches used by your community.

*Corequisite: 10838105 Intro Reading and Study Skills or Reading placement assessment equivalent*

## Purchasing

**10182108 .....3 credits**

Introduces the participant to basic purchasing, quality specifications, inventory control, supplier selection, price aspects, research and measurement, negotiation, and global purchasing. This course is exciting for anyone interested in working in a challenging and rewarding purchasing and supply chain management career.

## Service Operations Management

**10182102 .....3 credits**

Introduces the student to the basic coverage of the concepts and current issues in service operation management. Topics include the value equation in operations management; understanding services; building the service system; operating the service system; enterprise resource management (ERP); and supply chain management concepts in the service sector.

## Supervision

**10196191 .....3 credits**

Applies skills and tools necessary to perform the functions of a contemporary frontline leader. Students engage in operational planning, analyze organizational structures, review the staffing process, employ techniques to enhance employee personal and group effectiveness, and develop control techniques to measure effectiveness in the above areas.



# pharmacy technician

## Technical Diploma Program Code: 31-536-1 Total Credits: 32

Mid-State's Pharmacy Technician program provides hands-on learning that prepares students to assist licensed pharmacists in safely dispensing prescription medication. Graduates may work in hospital and retail pharmacies, nursing homes, and everywhere medications are prepared. In this program, you'll receive both lab and clinical experience in using pharmacy software to build patient profiles, as well as interpret and enter prescriptions. Core program courses are offered via video conference hosted by Lakeshore Technical College (LTC) and are supported by select classes available with Mid-State.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://mstc.edu/programcosts)

### ACADEMIC ADVISOR

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Form(s): \_\_\_\_\_
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Where: \_\_\_\_\_  
When: \_\_\_\_\_  
With: \_\_\_\_\_
- Official Transcripts  
Mid-State Technical College  
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Stevens Point, WI 54481
- Other: \_\_\_\_\_  
\_\_\_\_\_

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**MID-STATE**  
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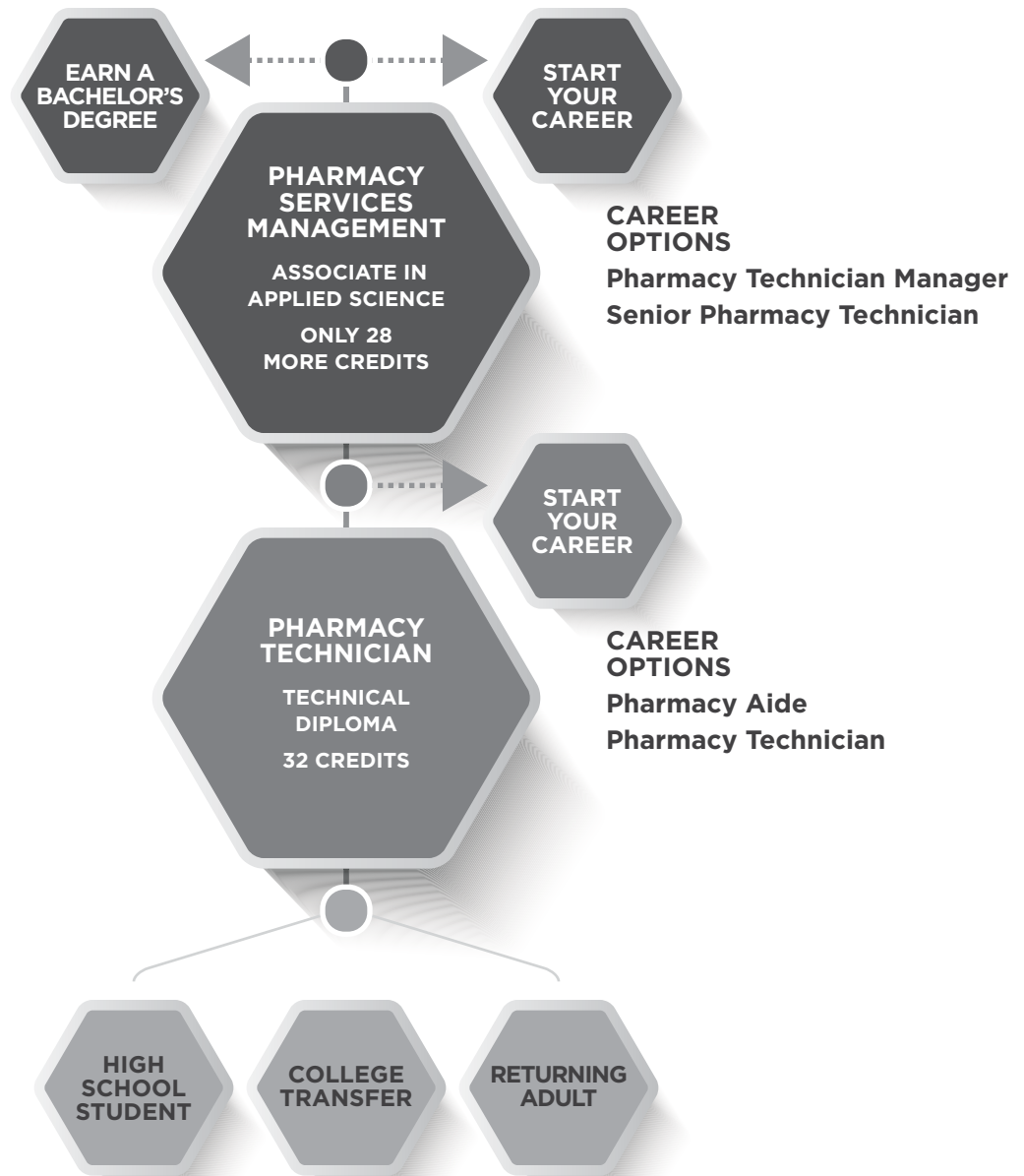
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Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

## OTHER OPTIONS

### RELATED PROGRAMS

- Central Service Technician
- Health Information Management
- Health & Wellness Promotion
- Medical Assistant
- Medical Coder
- Nursing
- Nursing Assistant
- Phlebotomy Technician
- Respiratory Therapy
- Surgical Technologist

**BEGIN AT ANY POINT  
IN THE PATHWAY**



## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 .....2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 .....3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid.

This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 .....3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		18 credits
10501101	Medical Terminology	3
10501102	Health Insurance and Reimbursement*	3
10536110	Pharmaceutical Calculations*	3
10536113	Pharmacy Business Applications*	3
10536115	Pharmacy Law*	2
10536120	Fundamentals of Reading Prescriptions*	1
10536122	Pharmacology*	3

Term		14 credits
10536125	Pharmacy Drug Distribution Systems*	2
10536126	Pharmacy Parenteral Admixtures*	3
10536138	Pharmacy Community Clinical*	2
10536141	Pharmacy Computer Lab*	2
10536143	Pharmacy Hospital Clinical*	2
10801196	Oral/Interpersonal Communication	3

**Total Credits 32**

*\*These courses are offered through Lakeshore Technical College but may be taken via Telepresence at Mid-State's Stevens Point campus.*

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](http://mstc.edu/classfinder).

## Fundamentals of Reading Prescriptions

**10536120..... 1 credit**

Prepares the learner to work in a community or hospital pharmacy by exploring the role of a pharmacy technician within the healthcare team, examining each step in the prescription filling process, and identifying the key top 200 drugs by brand and generic name and therapeutic class.

*Condition: 315361 Pharmacy Technician admission requirements met*

## Health Insurance and Reimbursement

**10501102 .....3 credits**

Provides the learner with an understanding of the various types of insurance and managed care plans, and the cycle of medical claims procession. The learner will review cases, develop critical thinking skills in analyzing information, and selecting processes for reimbursement success.

## Medical Terminology

**10501101..... 3 credits**

Focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Learners practice formation, analysis, and reconstruction of terms. Emphasizes spelling, definition, and pronunciation. Introduces operative, diagnostic, therapeutic, and symptomatic terminology of all body systems as well as systemic and surgical terminology.

## 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 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.*

## Pharmaceutical Calculations

**10536110 .....3 credits**

Prepares the learner to enlarge and reduce formulas and solve proportions, dilutions, allegations, and other calculations pertinent to the preparation of pharmaceuticals using metric, apothecary, avoirdupois, and household measuring systems.

*Condition: 315361 Pharmacy Technician, 105361 Pharmacy Services Management, or 195316 Employed Pharmacy Technician admission requirements met*

## Pharmacology

**10536122 .....3 credits**

Enhances the learner's ability to act and react appropriately in the pharmacy by learning how drugs work through examination of the anatomy, physiology, pathophysiology, and drug therapy for each of the major systems.

*Condition: 315361 Pharmacy Technician, 105361 Pharmacy Services Management, 615361 Community Retail Pharmacy Technician, or 195361 Employed Pharmacy Technician admissions requirements met*

## Pharmacy Business Applications

**10536113.....3 credits**

Prepares the learner to utilize pharmaceutical business terminology, procedures, customer service, record keeping, purchasing procedures, inventory control systems, pricing, merchandising, reference materials, ethics, roles, responsibilities, and relationships with patients and coworkers.

*Condition: 315361 Pharmacy Technician or 105231 Pharmacy Services Management program requirements met*

## Pharmacy Community Clinical

**10536138 .....2 credits**

Provides hands-on experience in a community pharmacy for 108 hours during term two. Areas of instruction include interpretation of prescriptions, entering prescriptions on computer, patient profiles, correctly filling and labeling prescriptions, billing patient and third parties, customer service, over-the-counter medications, purchasing, checking in deliveries, inventory control, compounding, and patient confidentiality.

*Prerequisites: 10536110 Pharmaceutical Calculations, 10536120 Fundamentals of Reading Prescriptions, 10501102 Health Insurance & Reimbursement, 10536113 Pharmacy Business Applications; Condition: 315361 Pharmacy Technician, 105361 Pharmacy Services Management, or 615361 Community Retail Pharmacy Technician program requirements met*

## Pharmacy Computer Lab

**10536141.....2 credits**

Expands the learner's ability to enter prescription orders and familiarizes learner with a variety of pharmacy software features, including updating pharmacy databases, running reports, and billing. This course is offered in a self-paced format.

*Prerequisites: 10536120 Fundamentals of Reading Prescriptions; Condition: 315361 Pharmacy Technician or 105361 Pharmacy Services Management admissions requirements met*

## Pharmacy Drug Distribution Systems

**10536125 .....2 credits**

Is an introductory study of the basic drug distribution systems used in community and institutional pharmacies, including automation technology, pharmacist and pharmacy technician roles, and dispensing considerations.

*Condition: 315361 Pharmacy Technician or 105361 Pharmacy Services Management admissions requirements met*

## Pharmacy Hospital Clinical

**10536143 .....2 credits**

Provides the learner with the skills to prepare parenteral admixtures, fill medication carts and unit-dose drawers, control inventory, package medications, and maintain patient records in the hospital setting.

*Prerequisites: 10536110 Pharmacy Calculations and Corequisite: 10536139 Pharmacy Community Clinical, 10536126 Pharmacy Parenteral Admixtures and 10536141 Pharmacy Computer Lab; Condition: 315361 Pharmacy Technician, or 105361 Pharmacy Services Management admissions requirements met*

## **Pharmacy Law**

**10536115.....2 credits**

Introduces the learner to federal and state regulations that apply to pharmacy practice.

*Condition: 315361 Pharmacy Technician, 105361 Pharmacy Services Management, or 195361 Employed Pharmacy Technician admissions requirements met*

## **Pharmacy Parenteral Admixtures**

**10536126.....3 credits**

Provides the learner with the skills to utilize aseptic technique in vertical and horizontal laminar flow hoods for preparation of solutions and medications to be administered intravenously, intramuscularly, subcutaneously, and intradermally to patients.

*Prerequisite: 10536110 Pharmaceutical Calculations;*

*Condition: 315361 Pharmacy Technician, 105361 Pharmacy Services Management, or 195361 Employed Pharmacy Technician admission requirements met*



# phlebotomy technician

## Technical Diploma Program Code: 30-513-1 Total Credits: 13

Mid-State's Phlebotomy Technician program teaches blood collecting techniques to provide samples for lab analysis, including venipuncture, skin punctures, and arterial punctures. You will also learn to perform various lab procedures, including specimen processing. Our program is among the few in Wisconsin approved by the National Accrediting Agency for Clinical Laboratory Sciences. The course of study is quick and hands on, with a practicum at a regional health care agency. Graduates are prepared to take a voluntary national certification exam.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

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- 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
- Criminal Background Statement of Understanding and Release of Information Form
- Other: \_\_\_\_\_  
\_\_\_\_\_

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**888.575.6782**



**MID-STATE**  
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**ADAMS CAMPUS**  
401 North Main  
Adams, WI 53910

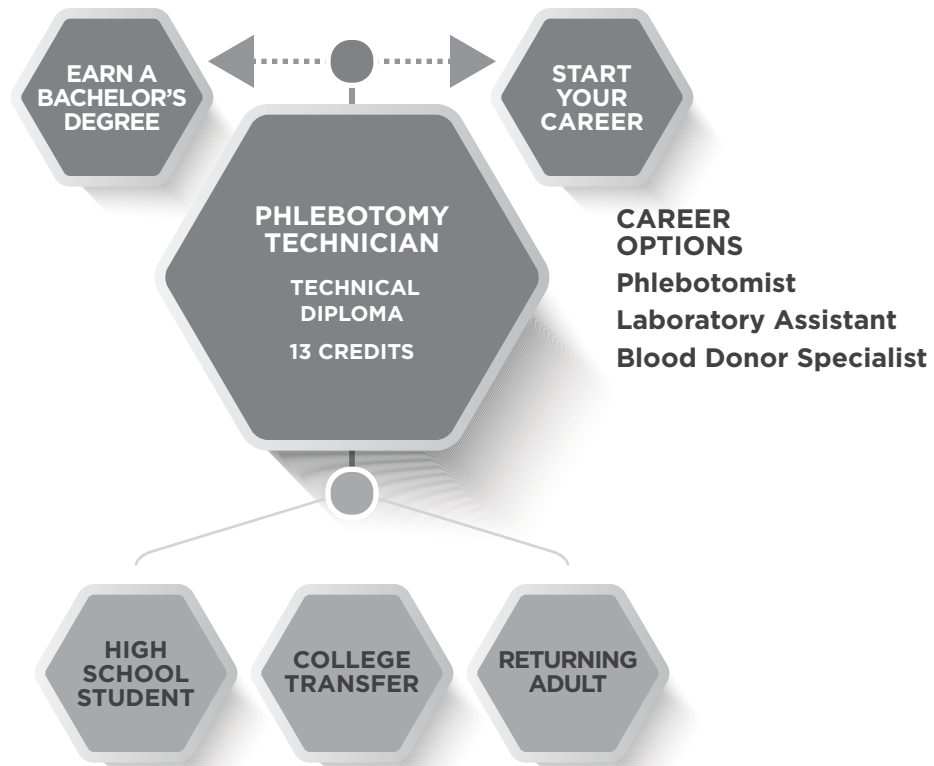
**MARSHFIELD CAMPUS**  
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Marshfield, WI 54449

**STEVENS POINT CAMPUS**  
1001 Centerpoint Drive  
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**WISCONSIN RAPIDS CAMPUS**  
500 32nd Street North  
Wisconsin Rapids, WI 54494

## BACHELOR'S DEGREE OPTIONS

For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).



College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Central Service Technician
- Health & Wellness Promotion
- Health Information Management
- Medical Assistant
- Medical Coder
- Nursing
- Nursing Assistant
- Pharmacy Services Management
- Pharmacy Technician
- Respiratory Therapy
- Surgical Technologist

## PROGRAM OUTCOMES

Employers will expect you, as a Phlebotomy Technician graduate, to be able to:

- Adhere to infection control and safe practices.
- Perform specimen collection.
- Process specimens.
- Comply with legal regulations.
- Model professional behaviors.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students who successfully pass the Phlebotomy Clinical will meet the requirements of the TSA.

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The Phlebotomy Technician program is approved by the National Accrediting Agency for Clinical Laboratory Sciences, one of only three approved programs in Wisconsin. Graduates are also prepared to take a national certification exam. However, taking and passing a national exam is not a graduation requirement.

### National Accrediting Agency for Clinical Laboratory Sciences

5600 N. River Road Suite 720  
Rosemont, IL 60018-5119  
773.714.8880 • [www.naacls.org](http://www.naacls.org)

## ADDITIONAL ENTRY CRITERIA

To apply to the Phlebotomy Technician program, please submit the following documents to Mid-State Admissions:

- Criminal Background Statement of Understanding and Release of Information form.

**Mid-State Technical College • Admissions**  
**500 32nd Street North, Wisconsin Rapids, WI 54494**

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as a phlebotomy technician is available at [mstc.edu/programs/phlebotomy-technician](http://mstc.edu/programs/phlebotomy-technician). Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## CLINICAL-RELATED REQUIREMENTS

Prior to placement at a clinical site, students need to pay for a criminal background check and provide documentation of required health work to a private vendor.

Students are responsible for ensuring all requirements remain current during program enrollment.

Clinical sites have the right to refuse a student's placement based on inadequate health records, pending charges, or conviction records. Students with a criminal history may not be able to complete clinical courses. Mid-State will make two attempts to place a student in an appropriate clinical experience. If Mid-State is unable to place the student after two attempts, the student will be withdrawn from the clinical course and will not be able to advance in the program.

## PROGRAM PROGRESSION

In order to maintain a passing status and progress in the program, students must:

- Receive a grade of "C" or better in all courses required for graduation.
- Repeat courses not completed with a grade of "C" or better prior to progressing in core courses or other courses with co- or prerequisites.

Please note that the ability to repeat courses is dependent upon availability in courses. Students may be required to apply for program re-entry in order to repeat courses within the program's instructional area. All first-semester courses must be completed with a grade of "C" or better to progress to core classes in the second semester.

Students will receive three attempts to pass any 10-513 course. If a passing grade is not achieved in three attempts, the student will be permanently withdrawn from the program or program waiting list. A withdrawal grade of "W" counts as one attempt for the course. Requests for special consideration should be directed to the associate dean of the School of Health.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.



## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

#### 10890102 ..... 1 credit

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

#### 10838104 ..... 2 credits

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

#### 10831103 ..... 3 credits

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

#### 10834109 ..... 3 credits

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		13 credits
10501101	Medical Terminology	3
10501104	Culture of Healthcare	2
10513110	Basic Lab Skills	1
10513111	Phlebotomy	2
10513117	Phlebotomy Clinical	2
31509302	Human Body in Health and Disease	3
<b>Total credits</b>		<b>13</b>

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10501101	Medical Terminology	3
31509302	Human Body in Health and Disease	3
Term		7 credits
10501104	Culture of Healthcare	2
10513110	Basic Lab Skills	1
10513111	Phlebotomy	2
10513117	Phlebotomy Clinical	2
<b>Total credits</b>		<b>13</b>

## Basic Lab Skills

### 10513110 ..... 1 credit

Explores laboratory science career options and the fundamental principles and procedures performed in the laboratory. You will utilize medical terminology and basic laboratory equipment. You will follow required safety and infection control procedures and perform simple laboratory tests.

## Culture of Healthcare

### 10501104 ..... 2 credits

An introduction to the culture of healthcare for students interested in working in various healthcare settings. Learners examine professionalism, interpersonal and written communication skills, problem-solving skills and patient privacy and confidentiality issues as they relate to healthcare.

## Human Body in Health and Disease

### 31509302 ..... 3 credits

Focuses on diseases that are frequently first diagnosed and treated in the medical office setting. Students learn to recognize the causes, signs, and symptoms of diseases of the major body systems as well as the diagnostic procedures, usual treatment, prognosis and prevention of common diseases.

## Medical Terminology

### 10501101 ..... 3 credits

Focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Learners practice formation, analysis, and reconstruction of terms. Emphasizes spelling, definition, and pronunciation. Introduces operative, diagnostic, therapeutic, and symptomatic terminology of all body systems as well as systemic and surgical terminology.

## Phlebotomy

### 10513111 ..... 2 credits

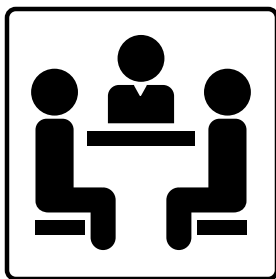
Provides opportunities for learners to perform routine venipuncture, routine capillary puncture and special collection procedures.

## Phlebotomy Clinical

### 10513117 ..... 2 credits

Prepares the learner to function as a staff member in a medical laboratory setting performing venipuncture and other specimen collection procedures, processing and handling of laboratory specimens, and performing related duties. There is no remuneration for students enrolled in this course.

*Corequisite: Phlebotomy 10513111 and Basic Lab Skills 10513111 with a grade of "C" or better.*



# project management

## Technical Diploma Program Code: 30-196-7 Total Credits: 24

Mid-State's Project Management program prepares students to successfully lead a project toward completion. Graduates are prepared to lead both teams and individuals toward a common goal and effectively use problem solving, budgeting, technology and math skills, and effective communication. Through hands-on projects, you will learn how to manage and develop teams while practicing problem-solving analysis to effectively lead teams toward goal or project completion.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://mstc.edu/programcosts)

### ACADEMIC ADVISOR

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# career pathway

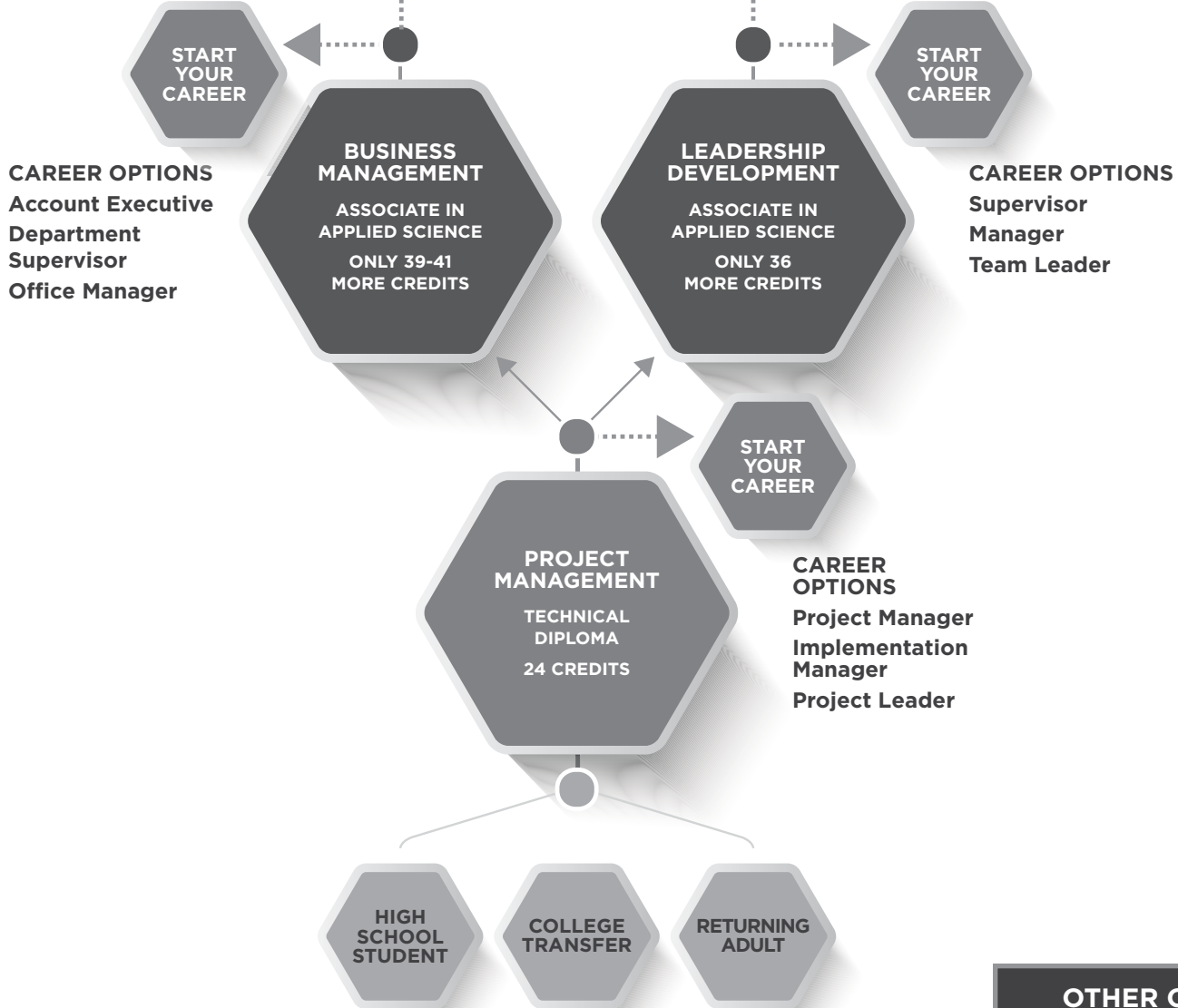
## BACHELOR'S DEGREE OPTIONS

Capella University  
Herzing University  
Lakeland University  
University of Phoenix  
UW-Oshkosh  
UW-Stevens Point

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College Credit • Dual Credit • Military Experience • Work Experience  
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## OTHER OPTIONS

### RELATED PROGRAMS

- Administrative Professional
- Customer Relationship Professional
- Leadership Development
- Office Support Specialist





## College Mathematics

### 10804107 .....3 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.*

## English Composition 1

### 10801136 .....3 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.*

## Finance and Budgeting

### 10102121 .....3 credits

For the nonfinancial manager, this course introduces the language of accounting, finance, and budgeting. Provides an overview of the use and analysis of financial statements. Business planning and the foundations and development of budgets are explored. Business financing basics and the securing of necessary financing for a business are covered. Practical application of financial statement creation and analysis, budgetary activities, and finance calculations are included.

## Managing for Quality

### 10196192.....3 credits

Apply skills and tools necessary to implement and maintain a continuous improvement environment. Each learner will demonstrate the application of a personal philosophy of quality, identify stakeholder relationships, identify ways to meet/exceed customer expectations, apply a systems-focused approach, use quality models and tools, manage a quality improvement project, and measure effectiveness of continuous improvement activities.

## Microsoft Office-Introduction

### 10103106 .....3 credits

Develops introductory skills in the Microsoft Office Suite (Word, Excel, Access, PowerPoint, and Outlook) while reinforcing the students' knowledge of computer concepts, Windows Explorer, and web usage. Students should possess basic keyboarding, mouse and Windows 10 skills. Students may develop these skills in the LiNK while concurrently enrolled in this course.

## Project Management

### 10196188.....3 credits

Applies skills and tools necessary to design, implement, and evaluate formal projects. Each learner writes a project proposal, works with project teams, sequences project tasks, develops project budgets, identifies project resources, implements the project, charts project progress, deals with variations, evaluates the project, and uses various technology in these processes.

## Speech

### 10801198 .....3 credits

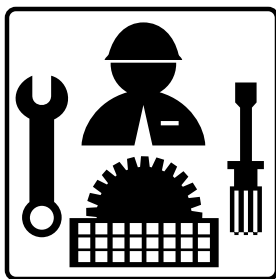
Explores the fundamentals of effective oral presentation to small and large groups. Topic selection, audience analysis, methods of organization, research, structuring evidence and support, delivery techniques, and other essential elements of speaking successfully, including the listening process, form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

## Team Building & Problem Solving

### 10196189 .....3 credits

Applies skills and tools necessary to facilitate problem solving in a team environment. Each learner assumes the roles and responsibilities of team leadership in the stages of team development, uses a systematic problem-solving process, and employs consensus-building and conflict-management strategies.



# renewable energy technician

## Associate in Applied Science (AAS) Program Code: 10-482-3 Total Credits: 60

The only program of its kind in the Wisconsin Technical College System, Mid-State's Renewable Energy Technician program prepares students to design an integrated portfolio of renewable and traditional energy-producing systems. Graduates develop a working knowledge of "green" building concepts and energy-efficient design principles as well as the foundation needed for an entry-level position in the heating, ventilation, and air conditioning (HVAC) fields. In this program you'll learn to perform site assessments and recommend appropriate renewable energy technologies, sell and market renewable energy technologies, and manage renewable energy installation projects. Mid-State's unique facilities, a variety of brands of equipment and software for training, experienced faculty, and off-campus design opportunities make this program one-of-a-kind.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://mstc.edu/programcosts)

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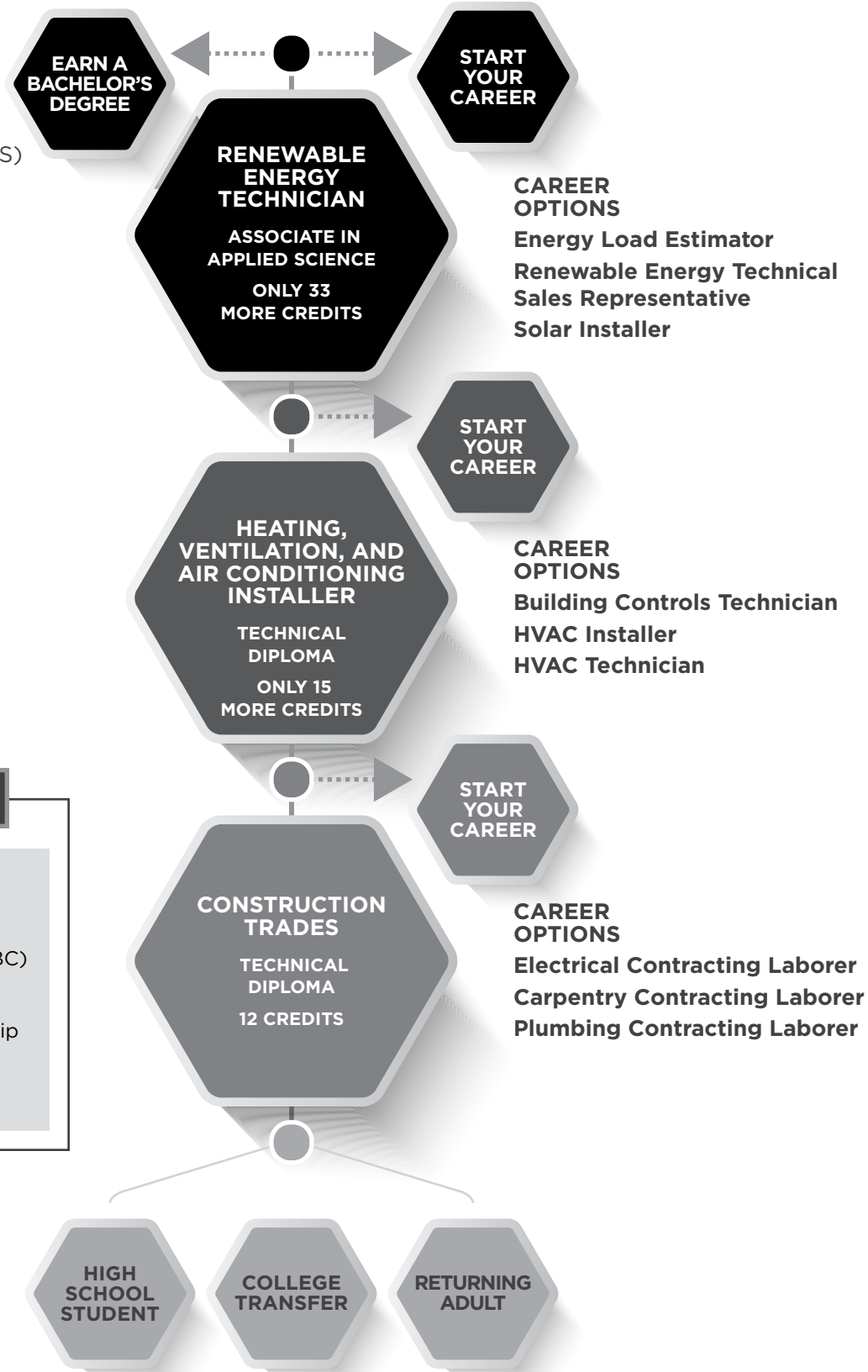
**WISCONSIN RAPIDS CAMPUS**  
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**BACHELOR'S DEGREE OPTIONS**

UW-River Falls,  
Sustainable Management (BS)

For more information and  
additional opportunities,  
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**OTHER OPTIONS**

**APPRENTICESHIP OPPORTUNITIES**

- Carpenter Apprenticeship
- Construction Electrician (ABC) Apprenticeship
- Construction Electrician (IBEW-NECA) Apprenticeship
- Plumber Apprenticeship
- Steamfitter and Steamfitter Service Apprenticeship

College Credit • Dual Credit • Military Experience • Work Experience  
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## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10442117	Welding Fundamentals 1 <b>-or-</b>	
10442118	Welding Fundamentals 2	1
10476170	OSHA 30 for the Construction Trades	2
10480101	Renewable Energy Overview	2
10482107	Construction Fundamentals	2
10483121	Piping Applications	3
10601110	HVAC Heating Fundamentals	2
10601130	Blueprint Reading for Construction Trades	2
10601140	Electricity for the Construction Trades	2

Term		16 credits
10482140	Planning, Design, & Project Management 1	3
10483110	Sustainable Heating System Design & Installation	3
10483115	Energy Load Estimation and Modeling	3
10483130	Electrical Controls & Systems for Buildings	3
10601120	HVAC Air Conditioning Fundamentals	2
10601121	Intro to HVAC Installation	2

Term		14 credits
10481110	Building Science and Evaluation	2
10482110	Photovoltaic System Design & Installation 1	3
10801136	English Composition 1	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
10804107	College Mathematics	3

Term		14 credits
10482111	Photovoltaic System Design & Installation 2	3
10482141	Planning, Design, & Project Management 2	3
10623106	Intro to AutoCAD	1
10623114	Intro to Inventor	1
10809166	Intro to Ethics: Theory & Application	3
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3

**Total credits 60**

Please Note:

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- Program completion time may vary based on student scheduling and course availability. For details, go to [mstc.edu/classfinder](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		7 credits
10442117	Welding Fundamentals 1 <b>-or-</b>	
10442118	Welding Fundamentals 2	1
10476170	OSHA 30 for the Construction Trades	2
10480101	Renewable Energy Overview	2
10601140	Electricity for the Construction Trades	2

Term		8 credits
10482140	Planning, Design, & Project Management 1	3
10483110	Sustainable Heating System Design & Installation	3
10601120	HVAC Air Conditioning Fundamentals	2

Term		7 credit
10482107	Construction Fundamentals	2
10483121	Piping Applications	3
10601110	HVAC Heating Fundamentals	2

Term		8 credits
10483115	Energy Load Estimation and Modeling	3
10483130	Electrical Controls & Systems for Buildings	3
10601121	Intro to HVAC Installation	2

Term		7 credits
10481110	Building Science and Evaluation	2
10601130	Blueprint Reading for Construction Trades	2
10804107	College Mathematics	3

Term		7 credits
10482141	Planning, Design, & Project Management 2	3
10623106	Intro to AutoCAD	1
10809166	Intro to Ethics: Theory & Application	3

Term		9 credits
10482110	Photovoltaic System Design & Installation 1	3
10801136	English Composition 1	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3

Term		7 credits
10482111	Photovoltaic System Design & Installation 2	3
10623114	Intro to Inventor	1
10809188	Developmental Psychology <b>-or-</b>	
10809198	Intro to Psychology	3

**Total credits 60**

## **Blueprint Reading for Construction Trades**

**10601130.....2 credits**

Develops the ability to read blueprints for commercial and non-commercial structures. Emphasizes blueprints drawn by licensed architects, covering plumbing, electrical wiring, structural framing, millwork, interior and exterior details, and basic information.

## **Building Science and Evaluation**

**10481110.....2 credits**

This course studies the interrelationship of a building, its occupants and the systems in the building. Topics include ventilation, moisture, renewable energy, sustainability, LEED design, and energy use in buildings. Students will learn the tools and techniques used in the analysis of building envelope integrity. Skills include blower door testing and how to use an infrared camera and other tools to detect insulation, air, and moisture problems in a building.

## **College Mathematics**

**10804107.....3 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.*

## **Construction Fundamentals**

**10482107.....2 credits**

Studies the concepts associated with the theory, materials, and methods used in construction, including footings and foundations, walls, floors, roofs and roof materials, exterior finishes, interior walls, ceiling and floor finishes, insulation types, vapor and air infiltration, and sound protection. Students also become familiar with blueprint reading and examine all trades associated with construction, including, electrical, HVAC, and plumbing. Safe use of the appropriate tools for each trade is covered.

## **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.*

## **Electrical Controls & Systems for Buildings**

**10483130.....3 credits**

Topics include an introduction to AC/DC electricity and the physical laws that apply to electronic circuits. Direct current (DC) covers basic definitions of voltage, current, and resistance and analysis of series and parallel resistive circuits. Alternating current (AC) includes an introduction to AC generation, capacitors, inductors, and transformers and their applications in electronic circuits. Additional topics include control circuits, symbols, diagrams, protection devices, relays, thermostats, single-phase motors, control components, and troubleshooting ACR system wiring diagrams.

*Corequisite: Electrical Circuits I 10605105 or Intro to Electronics 10605108 or Electricity for the Construction Trades 10601140*

## **Electricity for the Construction Trades**

**10601140.....2 credits**

This course is an introduction to electrical theory and application for those in the construction and building trades. Content includes AC and DC circuits, schematics, Ohms law, multimeter use and circuit troubleshooting. This course will also provide an introduction to the contents of the National Electric Code (NEC).

## **Energy Load Estimation and Modeling**

**10483115.....3 credits**

In this course students will develop the skills to do residential and light commercial energy load estimations. Students will calculate heating and cooling building loads and estimate energy consumption rates and quantities. The student will also estimate energy upgrades such as insulation, window improvements, etc. and calculating payback and fuel savings. The course covers a variety of computer programs available for analyzing buildings.

## **English Composition 1**

**10801136.....3 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.

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## **HVAC Air Conditioning Fundamentals**

**10601120 .....2 credits**

Topics include air conditioning principles and terms, physical principles of air movement, air filtering and humidity, and methods of conditioning air for comfort and health. Also covers the proper use of psychrometers, dry bulb thermometers, hygrometers, and reading and interpretation of psychrometric charts and scales as well as ASHRAE and BPI ventilation standards for residential units. (HVAC is a common industry reference to heating, ventilation, and air conditioning.)

## **HVAC Heating Fundamentals**

**10601110 .....2 credits**

Provides an introduction to how homes and buildings are heated. Topics include introduction to heat principles, temperature measurement, fuels and other sources of heat, combustion, basic heating systems, basic furnace design, boiler design and operation, venting of furnaces, chimney or exhaust gases, and system controls. (HVAC is a common industry reference to heating, ventilation, and air conditioning.)

## **Intro to AutoCAD**

**10623106 .....1 credit**

This introductory course in computer-aided drafting (CAD) using AutoCAD software provides foundation skills in using CAD software to create and print two-dimensional technical drawings. This course is available to students in any program. Computer skills and prior knowledge of drawing/drafting techniques is recommended.

## **Intro to Ethics: Theory & Application**

**10809166 .....3 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 HVAC Installation**

**10601121 .....2 credits**

Addresses residential and light commercial heating and cooling systems. Emphasizes the diversity of heating and cooling systems and how they operate. Students participate in the installation of a variety of HVAC systems and troubleshoot and service systems. (HVAC is a common industry reference to heating, ventilation, and air conditioning.)

## **Intro to Inventor**

**10623114 .....1 credit**

This course is an introduction to Inventor by AutoDesk. Students will learn how to create 3D models of basic objects, add dimensioning, and generate multiview projections.  
*Corequisite: Intro to AutoCAD 10623106*

## **Intro to Psychology**

**10809198 .....3 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.*

## **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 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.*

## **OSHA 30 for the Construction Trades**

**10476170 .....2 credits**

The Occupational Safety and Health Administration (OSHA) 30 for the Construction Trades course teaches construction related workers about their rights, employer responsibilities and how to identify, abate, avoid and prevent job related hazards. Course outcomes align with the training outcomes recommended by OSHA. Upon successful completion, students will receive an OSHA 30 Card.

## **Photovoltaic System Design & Installation 1**

**10482110 .....3 credits**

Students learn the details involved in the mechanical and electrical integration of a photovoltaic (PV) system. Topics include system components, product specifications, product integration, racking system design capabilities and limits, system diagramming, configurations, safety, common design mistakes and solutions, and installation techniques. Involves students in the installation of a PV system.

## **Photovoltaic System Design & Installation 2**

**10482111 .....3 credits**

This course is a continuation of Photovoltaic System Design and Installation 1 and will include an indepth focus of the electrical integration of a PV system. Topics include: system design capabilities and limits, system diagramming, wiring configurations, safety, National Electrical Code, common design mistakes and solutions, wiring techniques and installation techniques. System maintenance principles and commissioning will also be covered.

*Prerequisite: Photovoltaic System Design and Installation 1 10482110*

## Piping Applications

**10483121.....3 credits**

Presents the fundamentals of plumbing and piping installation practices. Laboratory activities provide students with basic pipe joining processes associated with the plumbing and HVAC industries.

## Planning, Design, & Project Management 1

**10482140 .....3 credits**

Students in this capstone course design an integrated portfolio of energy systems, incorporating renewable energy options into a conventional system. Each learner writes a project proposal, works with project teams, sequences project tasks, develops project budgets, and identifies project resources.

## Planning, Design, & Project Management 2

**10482141 .....3 credits**

A continuation of Planning, Design, & Project Management I. Students create a capstone project that incorporates traditional and renewable energy systems with an overall goal of peak energy efficiency and energy production.

*Prerequisite: Planning, Design, & Project Management 1 10482140*

## Renewable Energy Overview

**10480101.....2 credits**

Investigates the need for renewable energy systems and emerging careers in renewable energy. Students examine the basic design, function, cost, and other considerations associated with solar photovoltaic, solar thermal, wind, geothermal and biomass renewable energy systems. Students also explore energy efficiency and conservation methods.

## 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. 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.*

## Sustainable Heating System Design & Installation

**10483110 .....3 credits**

Addresses solar thermal, geothermal, and biomass heating systems. Students participate in the installation and design of a solar hot water system. Topics include safety; system design and layout; component selection; mounting collectors; installing and insulating copper tubing; and installing a storage tank, heat exchanger, circulation pump, and other system components.

## Welding Fundamentals 1

**10442117 ..... 1 credit**

An introduction to fundamental welding techniques with an emphasis on safe work habits that covers the processes of FCAW, GMAW, and OXY-Fuel cutting. Classroom instruction paired with lab activities are designed to provide fundamental skills in each of the welding processes covered in the class.

## Welding Fundamentals 2

**10442118 ..... 1 credit**

An introduction to fundamental welding techniques with an emphasis on safe work habits that covers the processes of GTAW, SMAW and Plasma cutting. Classroom instruction paired with lab activities are designed to provide fundamental skills in each of the welding processes covered in the class.



# respiratory therapy

## Associate in Applied Science (AAS) Program Code: 10-515-1 Total Credits: 69

The Respiratory Therapy program at Mid-State prepares students to employ scientific principles to identify, treat, and prevent acute or chronic dysfunction of the cardiopulmonary system. Successful graduates work under medical direction in a variety of care settings. Students study airway management and life support, airway clearance therapies, pulmonary rehabilitation, medication administration, and the use of therapeutic medical gasses. The program combines classroom instruction and clinical experience with actual patients and equipment at local hospitals and agencies. Travel is required.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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
- Criminal Background Statement of Understanding and Release of Information Form
- Other: \_\_\_\_\_  
\_\_\_\_\_

**mstc.edu**  
**888.575.6782**



**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

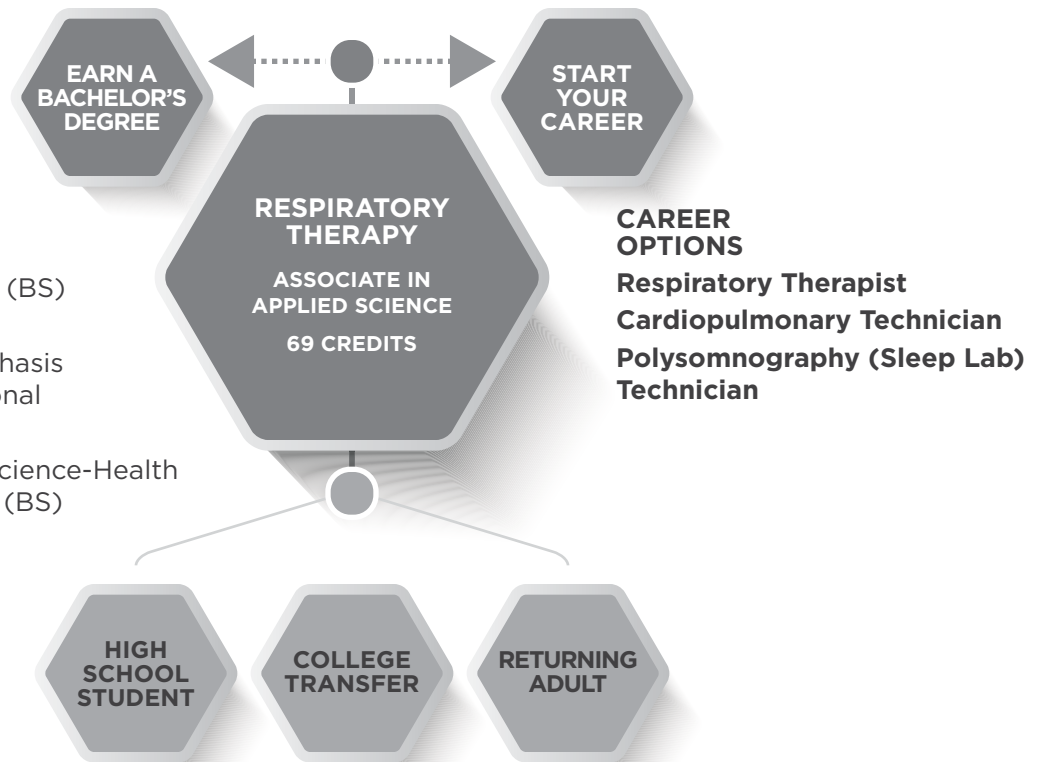
Cardinal Stritch University,  
Respiratory Therapist  
Completion (BS)

UW-Oshkosh,  
Human Services Leadership (BS)

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

UW-Stevens Point, Health Science-Health  
Care Administration Option (BS)

**For more information and  
additional opportunities,  
visit [mstc.edu/transfer](http://mstc.edu/transfer).**



**College Credit • Dual Credit • Military Experience • Work Experience**  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Central Service Technician
- Health Information Management
- Health & Wellness Promotion
- Medical Assistant
- Medical Coder
- Nursing
- Nursing Assistant
- Pharmacy Services Management
- Pharmacy Technician
- Phlebotomy Technician
- Surgical Technologist



## PROGRAM OUTCOMES

Employers will expect you, as a Respiratory Therapy graduate, to be able to:

- Apply advanced-level respiratory therapy concepts to patient care situations.
- Demonstrate technical proficiency required to fulfill the role of an advanced-level respiratory therapist.
- Practice respiratory therapy according to established professional and ethical standards.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students who successfully complete the NBRC exam at the end of the program will meet the TSA requirement.

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Respiratory therapists in Wisconsin and many other states are licensed professionals. The Respiratory Therapy program is accredited by:

### Commission on Accreditation for Respiratory Care (CoARC)

264 Precision Boulevard, Telford, TN 37690  
817.283.2835 • [www.coarc.com](http://www.coarc.com)

## ENTRY CRITERIA

To apply to the Respiratory Therapy program, please submit the following documents to Mid-State Admissions:

1. Complete a Mid-State Application form and return it with a \$30 non-refundable application fee.
2. Submit the Criminal Background Statement of Understanding and Release of Information form found at [mstc.edu/apply-mid-state-today](http://mstc.edu/apply-mid-state-today) (available after completion of program application).
3. Submit the Technical Standards Form found at [mstc.edu/programs/respiratory-therapy](http://mstc.edu/programs/respiratory-therapy).
4. Meet with an advisor for your new student advising appointment.
5. Complete Accuplacer or ACT if requirements not met via High School Grade Point Average.

**Mid-State Technical College • Admissions**  
**500 32nd Street North, Wisconsin Rapids, WI 54494**

**For placement on list to begin core Respiratory Therapy Program courses (515-level classes):**

**Meet math requirement via one of the following options:**

- Math portion of Accuplacer with score of 79
- Math portion of Next Generation Accuplacer with score of 259
- Math ACT score of 18
- College Math or Introduction to Statistics with a final grade of “C” or better

**Meet the Prerequisite for General Anatomy and Physiology via one of the following options:**

- General Chemistry or General Biology with “C” or better
- Human Body in Health and Disease with “C” or better
- High School GPA of 3.0 or better
- High School GPA of 2.6 or better with “C” or better in 3 high school science classes

Verify completion of the above with assigned academic advisor.

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as a respiratory therapist is available at [mstc.edu/programs/respiratory-therapy](http://mstc.edu/programs/respiratory-therapy) Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## CLINICAL-RELATED REQUIREMENTS

Prior to placement at a clinical site, students need to pay for a criminal background check and provide documentation of required health work to a private vendor.

Students are responsible for ensuring all requirements remain current during program enrollment.

Clinical sites have the right to refuse a student’s placement based on inadequate health records, pending charges, or conviction records. Students with a criminal history may not be able to complete clinical courses. Mid-State will make two attempts to place a student in an appropriate clinical experience. If Mid-State is unable to place the student after two attempts, the student will be withdrawn from the clinical course and will not be able to advance in the program.

## PROGRAM PROGRESSION

In order to progress in and successfully complete the program, students must:

- Repeat courses not completed with a grade of “C” or better prior to progressing in core courses or other courses with co- or prerequisites.
- Receive a grade of “C” or better in all courses required for graduation.

Please note that the ability to repeat courses is dependent upon availability of courses. Students may be required to apply for program re-entry in order to repeat courses within the program’s instructional area.



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10501101	Medical Terminology	3
10515111	Respiratory Survey	3
10515171	Respiratory Therapeutics 1	3
10801136	English Composition 1	3
10806177	General Anatomy & Physiology	4
Term		16 credits
10515172	Respiratory Therapeutics 2	3
10515173	Respiratory Pharmacology	3
10515174	Respiratory/Cardiac Physiology	3
10806197	Microbiology	4
10809166	Intro to Ethics: Theory & Application	3
Term		5 credits
10515175	Respiratory Clinical 1	2
10801196	Oral/Interpersonal Communication -or-	
10801198	Speech	3
Term		17 credits
10515112	Respiratory Airway Management	2
10515113	Respiratory Life Support	3
10515176	Respiratory Disease	3
10515178	Respiratory Clinical 2	3
10515179	Respiratory Clinical 3	3
10809122	Intro to American Government -or-	
10809172	Introduction to Diversity Studies -or-	
10809196	Intro to Sociology	3
Term		15 credits
10515101	Respiratory Therapist Test Prep	1
10515180	Respiratory Neo/Peds Care	2
10515181	Respiratory/Cardio Diagnostics	3
10515182	Respiratory Clinical 4	3
10515183	Respiratory Clinical 5	3
10809188	Developmental Psychology -or-	
10809198	Intro to Psychology	3
<b>Total Credits</b>		<b>69</b>

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10501101	Medical Terminology	3
10801136	English Composition 1	3
Term		7 credits
10806177	General Anatomy & Physiology	4
10809122	Intro to American Government -or-	
10809172	Introduction to Diversity Studies -or-	
10809196	Intro to Sociology	3
Term		7 credits
10806197	Microbiology	4
10809188	Developmental Psychology -or-	
10809198	Intro to Psychology	3
Term		6 credits
10801196	Oral/Interpersonal Communication -or-	
10801198	Speech	3
10809166	Intro to Ethics: Theory & Application	3
Term		6 credits
10515111	Respiratory Survey	3
10515171	Respiratory Therapeutics 1	3
Term		9 credits
10515172	Respiratory Therapeutics 2	3
10515173	Respiratory Pharmacology	3
10515174	Respiratory/Cardiac Physiology	3
Term		2 credits
10515175	Respiratory Clinical 1	2
Term		14 credits
10515112	Respiratory Airway Management	2
10515113	Respiratory Life Support	3
10515176	Respiratory Disease	3
10515178	Respiratory Clinical 2	3
10515179	Respiratory Clinical 3	3
Term		12 credits
10515101	Respiratory Therapist Test Prep	1
10515180	Respiratory Neo/Peds Care	2
10515181	Respiratory/Cardio Diagnostics	3
10515182	Respiratory Clinical 4	3
10515183	Respiratory Clinical 5	3
<b>Total credits</b>		<b>69</b>

## 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.*

## English Composition 1

**10801136 .....3 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.*

## General Anatomy & Physiology

**10806177..... 4 credits**

Examines basic concepts of human anatomy and physiology as they relate to health sciences. Using a body systems approach, the course emphasizes the interrelationships between structure and function at the gross and microscopic levels of organization of the entire human body. It is intended to prepare health care professionals who need to apply basic concepts of whole body anatomy and physiology to informed decision making and professional communication with colleagues and patients.

*Prerequisite: High School GPA of 3.0 or Accuplacer Reading Skills of 236 or ACT of 15, or General Chemistry 10806134 with a grade of "C" or better, or General Biology 10806114 with a grade of "C" or better, or Human Body in Health & Disease 10509102 with a "C" or better. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.*

## Intro to American Government

**10809122.....3 credits**

Introduces American political processes and institutions. Focuses on rights and responsibilities of citizens and the process of participatory democracy. Learners examine the complexity of the separation of powers and checks and balances. Explores the role of the media, interest groups, political parties, and public opinion in the political process. Also explores the role of state and national government in our federal system.

*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 Ethics: Theory & Application

**10809166 .....3 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 Psychology

**10809198 .....3 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.*

## Intro to Sociology

**10809196 .....3 credits**

Introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions of family, politics, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, and social organization.

*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.*

## Introduction to Diversity Studies

**10809172.....3 credits**

Introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, and religion are explored.

*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.*

## Medical Terminology

**10501101..... 3 credits**

Focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Learners practice formation, analysis, and reconstruction of terms. Emphasizes spelling, definition, and pronunciation. Introduces operative, diagnostic, therapeutic, and symptomatic terminology of all body systems as well as systemic and surgical terminology.

# course descriptions

## Microbiology

### 10806197..... 4 credits

Examines microbial structure, metabolism, genetics, growth, and the relationship between humans and microorganisms. Disease production, epidemiology, host defense mechanisms, and the medical impact of microbes in the environment, industry, and biotechnology are also addressed.

*Prerequisite: General Anatomy & Physiology 10806177 with a "C" or better, or General Biology 10806114 with a "C" or better, or Plant Biology 10806184 with a grade of "C" or better*

## 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 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.*

## Respiratory Airway Management

### 10515112 .....2 credits

Provides a comprehensive exploration of airway management concepts and skills. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care.

*Prerequisite: Respiratory Clinical 1 10515175*

## Respiratory Clinical 1

### 10515175.....2 credits

Introduces Respiratory Therapy practice in the hospital setting. Includes the development of skills such as basic therapeutics, patient assessment, medical record review, safety practices, patient interaction, and communication. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. This course includes the complete program competency list. At the completion of this clinical learners must demonstrate competence in a minimum of 5 (required and/or simulated) competencies. The instructor may identify specific competencies to be addressed during this clinical.

*Prerequisites: Respiratory Survey 10515111, Respiratory Therapeutics 1 10515171, Respiratory Therapeutics 2 10515172, Respiratory Pharmacology 10515173, Respiratory/Cardiac Physiology 10515174, and Microbiology 10806197*

## Respiratory Clinical 2

### 10515178.....3 credits

Continued development of Respiratory Therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing and interpreting data to make appropriate modifications in patient care. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. This course includes the complete program competency list. At the completion of this clinical learners must demonstrate competence in a minimum of 12 (required and/or simulated) competencies (cumulative

through all clinical courses). The instructor may identify specific competencies to be addressed during this clinical.

*Prerequisite: Respiratory Clinical 1 10515175*

## Respiratory Clinical 3

### 10515179.....3 credits

Continued development of Respiratory Therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing and interpreting data to make appropriate modifications in patient care. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. This course includes the complete program competency list. At the completion of this clinical learners must demonstrate competence in a minimum of 19 (required and/or simulated) competencies (cumulative through all clinical courses). The instructor may identify specific competencies to be addressed during this clinical.

*Corequisite: Respiratory Clinical 2 10515178*

## Respiratory Clinical 4

### 10515182.....3 credits

Continued development of Respiratory Therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing and interpreting data to make appropriate modifications in patient care. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. This course includes the complete program competency list. At the completion of this clinical learners must demonstrate competence in a minimum of 26 (required and/or simulated) competencies (cumulative through all clinical courses). The instructor may identify specific competencies to be addressed during this clinical.

*Prerequisites: Respiratory Clinical 3 10515179 and Respiratory Life Support 10515113*

## Respiratory Clinical 5

### 10515183.....3 credits

Focuses on the completion of respiratory therapy competencies and transition to employment. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care. This course includes the complete program competency list. At the completion of this clinical learners must demonstrate competence in all of the required and required/simulated) competencies. The instructor may identify specific competencies to be addressed during this clinical.

*Corequisite: Respiratory Clinical 4 10515182*

## Respiratory Disease

### 10515176.....3 credits

Exploration of signs, symptoms, causes, progression, and treatment of diseases or disorders of the body that affect the respiratory cardiopulmonary system. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care.

*Prerequisites: Respiratory Survey 10515111, General Anatomy & Physiology 10806177, and Microbiology 10806197*

## Respiratory Life Support

**10515113.....3 credits**

Focuses on management of adult ventilatory support. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care.

*Prerequisites: Respiratory Therapeutics 2 10515172 and Respiratory Clinical 1 10515175; Corequisite: Respiratory Airway Management 10515112*

## Respiratory Neo/Peds Care

**10515180 .....2 credits**

Provides a comprehensive orientation to the field of neonatal and pediatric respiratory care to include fetal development, birth, neonatal physiology, pulmonary dynamics, abnormal cardiopulmonary conditions, diseases, noninvasive and invasive therapeutic interventions. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care.

*Prerequisite: Respiratory Life Support 10515113 and Respiratory Clinical 3 10515179*

## Respiratory Pharmacology

**10515173.....3 credits**

Examines basic pharmacology principles, drug dosage, and calculations. Medications for inhalation including mucolytics, bronchodilators, and anti-inflammatories. Also includes cardiac drugs, anesthetic drugs, neuromuscular blockers, and antimicrobials. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care.

*Prerequisites: Respiratory Survey 10515111, Respiratory Therapeutics 1 10515171, and General Anatomy & Physiology 10806177*

## Respiratory Survey

**10515111 .....3 credits**

Examines the role of the Respiratory Therapist within the healthcare community. Reviews the ethical, legal, and regulatory principles that guide practice across diverse populations. Introductory patient assessment and critical thinking processes used in the development of respiratory care plans are explored. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care.

*Prerequisite: Admission to Respiratory Therapy 105151 program; Corequisites: Medical Terminology 10501101 and General Anatomy & Physiology 10806177*

## Respiratory Therapeutics 1

**10515171 .....3 credits**

Introduces the topics of medical gas administration and humidity and aerosol therapy. The learner will apply physics, math and patient assessment concepts to oxygen, aerosol and humidity therapy. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care.

*Corequisites: Respiratory Survey 10515111, Medical Terminology 10501101, and General Anatomy & Physiology 10806177*

## Respiratory Therapeutics 2

**10515172.....3 credits**

Introduces therapeutic procedures including arterial puncture, bronchial hygiene, lung expansion therapy, and pulmonary rehabilitation. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care.

*Prerequisites: Respiratory Therapeutics 1 10515171, Respiratory Survey 10515111, and General Anatomy & Physiology 10806177*

## Respiratory Therapist Test Prep

**10515101 .....1 credit**

Explores strategies for preparing for respiratory therapist professional examinations including study skills, test-preparation skills, and test-taking skills. Includes a basic review of content related to the examinations.

*Corequisite: Respiratory Clinical 4 10515182*

## Respiratory/Cardiac Physiology

**10515174.....3 credits**

Provides the student with an in-depth knowledge of the structure and function of the respiratory and circulatory systems necessary to function as a competent Respiratory Therapist. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care.

*Prerequisites: General Anatomy & Physiology 10806177, Respiratory Survey 10515111, and Respiratory Therapeutics 1 10515171*

## Respiratory/Cardio Diagnostics

**10515181 .....3 credits**

Advanced invasive and noninvasive diagnostic cardiopulmonary procedures including pulmonary function, hemodynamics and rescue medicine. Emphasis is placed on promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care.

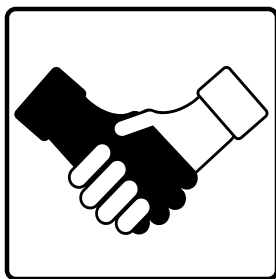
*Prerequisite: Respiratory Clinical 3 10515179*

## 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. 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.*



# sales specialist

## Technical Diploma

**Program Code: 30-104-7**

**Total Credits: 17**

The Sales Specialist program prepares students for success through a curriculum that provides fundamental knowledge of marketing and sales. Students develop communication skills, problem-solving abilities, and a professional polish, while learning how to sell goods and services using a consultative approach—abilities that are highly valued by organizations seeking to employ sales professionals. Mid-State's Sales Specialist program prepares individuals through hands-on sales practice and salesperson/client role-play activities. Includes a focus on digital sales communication in the social media realm, preparing you to communicate effectively with clients, prepare and deliver sales-related presentations, and recommend the most appropriate solutions for your client.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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

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- Financial Aid Form(s)  
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With: \_\_\_\_\_
- Official Transcripts  
Mid-State Technical College  
Student Services Assistant  
1001 Centerpoint Drive  
Stevens Point, WI 54481
- Other: \_\_\_\_\_  
\_\_\_\_\_

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**MID-STATE**  
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**ADAMS CAMPUS**  
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**MARSHFIELD CAMPUS**  
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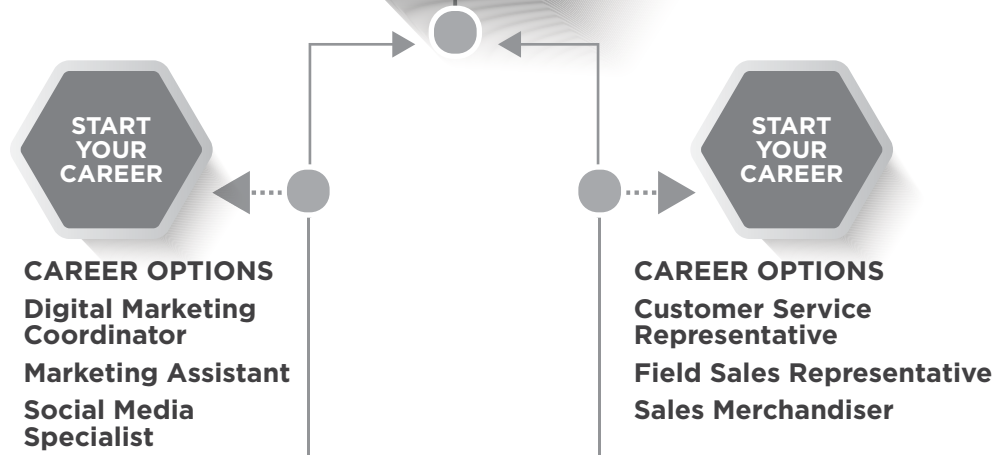
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1001 Centerpoint Drive  
Stevens Point, WI 54481

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

**BACHELOR'S DEGREE OPTIONS**

Herzing University, Marketing (BS)  
 Lakeland University, Marketing (BA)  
 UW-Stevens Point, Marketing (BS)

**For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).**



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## English Composition 1

**10801136 .....3 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.*

## Marketing Communications

**10104110.....2 credits**

This course prepares the learner to create and manage a wide range of internal and external organizational communications that are essential to the marketing function. Learners will be instructed on the interpersonal communication techniques required for success as a marketing professional. Topics will include preparing professionally written content, effectively using verbal and non-verbal communication in a business setting, and developing a professional appearance and polish. Presentation techniques for the creation and delivery of complex marketing materials and data will be addressed. Additionally, there will be a focus on public relations to include writing press releases, managing crises, and speaking with the media.

## Marketing Principles

**10104102 .....3 credits**

This course serves as an introduction to the fundamental marketing concepts used to apply marketing strategies to product development, distribution, pricing, and promotion of goods and services.

## Professional Selling

**10104105 .....3 credits**

Students develop the kind of sales techniques that encourage customers to believe in the integrity of the salesperson and the product. Subjects include handling customers' tangible and intangible needs, attitude conversion, sales strategies for a variety of conditions, and the changing form of selling techniques. Focuses on the need for a sales personality and the importance of psychology and creativity in selling.

## Social Media Marketing

**10104107 .....3 credits**

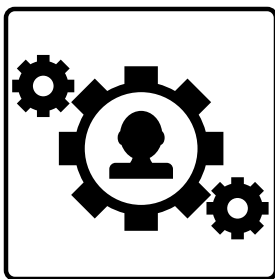
Addresses how social media has transformed marketing communications from traditional mass media to individualized marketing. Using a variety of social media tools and platforms, this class explores the different methodologies for social media marketing. Topics include creating social media, integrating social media as part of a marketing campaign, the concept of viral marketing, measuring social media success through analytics, and how organizations and individuals have successfully applied this form of marketing.

## 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. 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.*



# stainless steel welding

## Technical Diploma

**Program Code: 30-442-7**

**Total Credits: 6**

Mid-State's Stainless Steel Welding program prepares students for entry-level employment as a stainless steel welder in production, construction, manufacturing, and servicing industries. Experienced instructors will teach you basic TIG (tungsten inert gas) welding of stainless steel as well as fabrication, print reading, and more. Instruction will combine lecture with hands-on practice, giving you the confidence you need to start your career in this rewarding field.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://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](http://mstc.edu/advising).

### CHECKLIST:

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**MID-STATE**  
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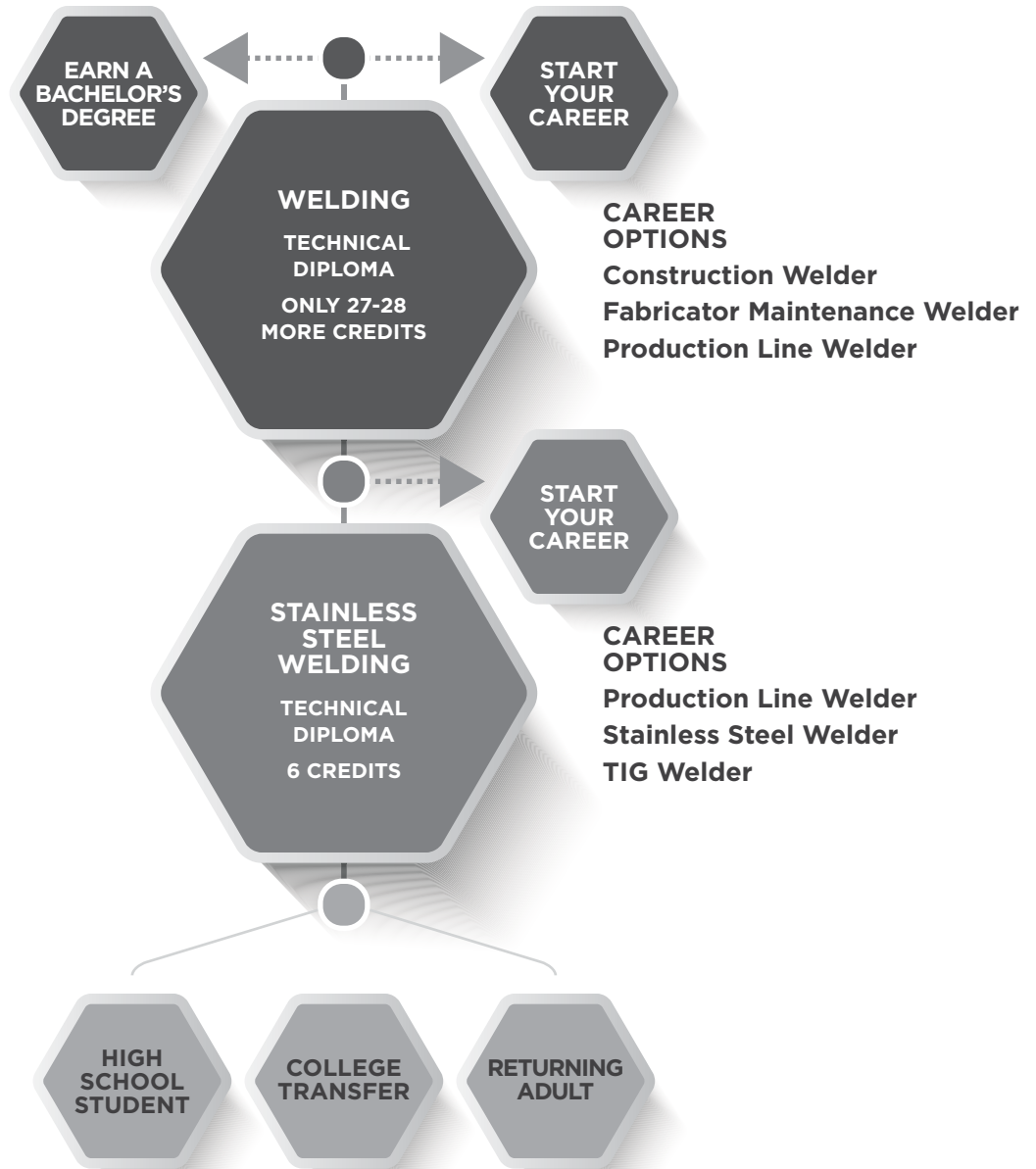
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Wisconsin Rapids, WI 54494

## BACHELOR'S DEGREE OPTIONS

For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).



College Credit • Dual Credit • Military Experience • Work Experience  
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## OTHER OPTIONS

### RELATED PROGRAMS

- Industrial Mechanical Technician
- Machine Tool Technician
- Manufacturing Operations Management

### APPRENTICESHIP OPPORTUNITIES

- Ironworker Apprenticeship

## PROGRAM OUTCOMES

Employers will expect you, as a Stainless Steel Welding graduate, to be able to:

- Demonstrate industry-recognized safety practices.
- Interpret welding drawings.
- Produce gas tungsten arc welds (GTAW).

## PROTECTIVE CLOTHING

Students are required to provide their own protective clothing and equipment. Details of the requirements and where they may be purchased are provided by the program instructor at the beginning of each semester.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

**10838104 .....2 credits**

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

**10831103 .....3 credits**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

**10834109 .....3 credits**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		6 credits
10442101	Basic GTAW (TIG)	2
10442102	Intermediate GTAW (TIG)	2
10442103	Advanced GTAW (TIG)	2
<b>Total credits</b>		<b>6</b>

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](http://mstc.edu/classfinder).

## course descriptions

### Advanced GTAW (TIG)

**10442103 .....2 credits**

Students learn complete penetration stainless steel pipe welds in the 5G and 6G positions.

*Corequisite: Intermediate GTAW (TIG) 10442102*

### Basic GTAW (TIG)

**10442101 .....2 credits**

An introduction to the gas tungsten arc welding (GTAW) process commonly known as TIG, including the necessary safety and care of equipment and supplies. The student develops skills with the common production welding joints and materials.

### Intermediate GTAW (TIG)

**10442102 .....2 credits**

In this course students weld in the horizontal and vertical positions on stainless steel and aluminum. Pulsed current is applied to stainless steel weldments. Complete penetration groove welds in stainless steel are practiced and evaluated.

*Corequisite: Basic GTAW (TIG) 10442101*



# surgical technologist

## Technical Diploma Program Code: 31-512-1 Total Credits: 36-38

The Surgical Technologist program at Mid-State prepares graduates to work as part of the surgical team in operating rooms, providing instruments and supplies to the surgeon. Students learn skills and techniques used in central service with instrument processing. Training encompasses both classroom and lab instruction. You will gain clinical hands-on experience in surgery, ambulatory centers, central service, and other related areas. After successful completion of the program and certification exam, you will be a Certified Surgical Technologist (CST).

**Estimated tuition and fees:** [mstc.edu/programcosts](http://mstc.edu/programcosts)

### ACADEMIC ADVISOR

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- Criminal Background Statement of Understanding and Release of Information Form
- Other: \_\_\_\_\_  
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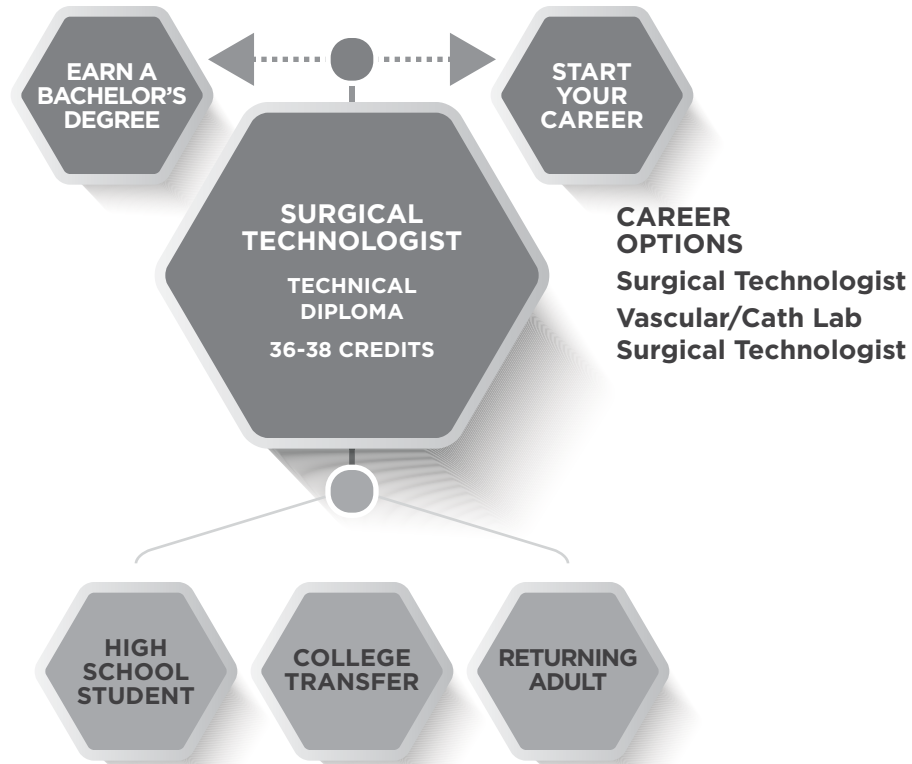
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College Credit • Dual Credit • Military Experience • Work Experience  
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## OTHER OPTIONS

### RELATED PROGRAMS

- Central Service Technician
- Health Information Management
- Health & Wellness Promotion
- Medical Assistant
- Medical Coder
- Nursing
- Nursing Assistant
- Pharmacy Services Management
- Pharmacy Technician
- Phlebotomy Technician
- Respiratory Therapy



## PROGRAM OUTCOMES

Employers will expect you, as a Surgical Technologist graduate, to be able to:

- Apply health care and technological science principles to the perioperative environment.
- Maintain principles of sterile technique in the surgical environment.
- Provide a safe, efficient, and supportive environment for the patient.
- Prepare the patient, operating room, and surgical team for the preoperative phase.
- Perform intraoperative case management in the scrub role.
- Perform postoperative case management.
- Function as an ethical, legal, and professional member of the health care team as determined by governing bodies.

## TECHNICAL SKILLS ATTAINMENT

The Wisconsin Technical College System (WTCS) has implemented a requirement that all technical colleges measure program outcomes attained by students. This requirement is called Technical Skills Attainment (TSA). The main objective of TSA is to ensure graduates have the technical skills needed by employers. Students who successfully complete the final evaluation in ST: Clinical 3 will meet the TSA requirement.

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The Mid-State Technical College Surgical Technologist program is accredited by the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA), under the auspices of:

### Commission on Accreditation of Allied Health Education Programs

25400 US Highway 19 North, Suite 158,  
Clearwater, FL 33763  
727.210.2350 • [www.caahep.org](http://www.caahep.org)

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## ENTRY CRITERIA

To apply to the Surgical Technologist program, please submit the following documents to Mid-State Admissions:

1. Complete a Mid-State Application form and return it with a \$30 non-refundable application fee.
2. Submit the Criminal Background Statement of Understanding and Release of Information form found at [mstc.edu/programs/surgical-technologist](http://mstc.edu/programs/surgical-technologist) (available after completion of program application).
3. Submit the Technical Standards Form found at [mstc.edu/programs/surgical-technologist](http://mstc.edu/programs/surgical-technologist).
4. Meet with an advisor for your New Student Advising Appointment.
5. Complete Accuplacer or ACT if requirements not met via high school grade point average.

**Mid-State Technical College • Admissions**  
**500 32nd Street North, Wisconsin Rapids, WI 54494**

## For placement on list to begin core Surgical Technologist Program courses (515-level classes):

- Complete Medical Terminology with final grade of “C” or better.
- Complete General Anatomy & Physiology with a final grade of “C” or better.
- Verify completion of the above with assigned academic advisor.

## TECHNICAL STANDARDS

A list of specific physical, emotional, and mental tasks needed to function as a surgical technologist is available at [mstc.edu/programs/surgical-technologist](http://mstc.edu/programs/surgical-technologist). Contact the Disability Services coordinator in the Student Services & Information Center to receive assistance.

## CLINICAL-RELATED REQUIREMENTS

Prior to placement at a clinical site, students need to pay for a criminal background check and provide documentation of required health work to a private vendor.

Students are responsible for ensuring all requirements remain current during program enrollment.

Clinical sites have the right to refuse a student's placement based on inadequate health records, pending charges, or conviction records. Students with a criminal history may not be able to complete clinical courses. Mid-State will make two attempts to place a student in an appropriate clinical experience. If Mid-State is unable to place the student after two attempts, the student will be withdrawn from the clinical course and will not be able to advance in the program.

## PROGRAM PROGRESSION AND COMPLETION

In order to maintain a passing status and progress in the program, students must:

- Repeat courses not completed with a grade of “C” or better prior to progressing in core courses or other courses with co- or prerequisites.
- Receive a grade of “C” or better in all courses required for graduation.

Please note that the ability to repeat courses is dependent upon availability in courses. Students may be required to apply for program re-entry in order to repeat courses within the program's instructional area.

## STUDENT HANDBOOK

Visit [mstc.edu/studenthandbook](http://mstc.edu/studenthandbook) to view Mid-State's student handbook, which contains information about admissions, enrollment, appeals processes, services for people with disabilities, financial aid, graduation, privacy, Mid-State's Student Code of Conduct, and technology.

## GRADUATION REQUIREMENT

The GPS for Student Success course is required for all Mid-State program students and is recommended to be completed before obtaining 12 credits. (Not counted in the total credit value for this program.) Some students are exempt from this requirement. Please see your program advisor for more information.

### GPS for Student Success

#### 10890102 ..... 1 credit

Integrate necessary skills for student success by developing an academic plan, identifying interpersonal attributes for success, adopting efficient and effective learning strategies, and utilizing Mid-State resources, policies, and processes. This course must be completed prior to obtaining 12 credits and as a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

The following courses may be recommended or required if the student does not achieve minimum Accuplacer scores.

### Intro to College Reading

#### 10838104 ..... 2 credits

Provides learners with the opportunities to develop and expand reading skills, including comprehension and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources.

### Intro to College Writing

#### 10831103 ..... 3 credits

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. The purpose of this course is to prepare students for successful entry into required program courses. This course is tuition bearing and under certain circumstances may qualify for financial aid. This course cannot be used to satisfy program completion requirements at Mid-State.

*Prerequisite: Accuplacer Sentence Skills score of 60 or equivalent. Proficiency in word processing skills recommended.*

### Pre-Algebra

#### 10834109 ..... 3 credits

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses.

*Prerequisite: Accuplacer Math score of 65, Accuplacer Algebra score of 30, ABE Math Prep V 76854785 and ABE Math Prep VI 76854786 with a grade of "S." (Note: ABE Math Prep V and VI courses cannot be used to satisfy program completion requirements at Mid-State.)*

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		7 credits
10501101	Medical Terminology	3
10806177	General Anatomy & Physiology	4
Term		15-17 credits
31512327	ST: Introduction to Surgical Technology	4
31512328	ST: Fundamentals 1	4
31512329	ST: Fundamentals 2	2
31512330	ST: Clinical 1	3
10806197	Microbiology	4
	<b>-or-</b>	
31806311	Applied Microbiology	2
Term		14 credits
10501104	Culture of Healthcare	2
31512331	ST: Surgical Procedures	4
31512332	ST: Clinical 2	4
31512334	ST: Clinical 3	4
		<b>Total credits 36-38</b>

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		7 credits
10501101	Medical Terminology	3
10806177	General Anatomy & Physiology	4
Term		4-6 credits
10806197	Microbiology	4
	<b>-or-</b>	
31806311	Applied Microbiology	2
10501104	Culture of Healthcare	2
Term		13 credits
31512327	ST: Introduction to Surgical Technology	4
31512328	ST: Fundamentals 1	4
31512329	ST: Fundamentals 2	2
31512330	ST: Clinical 1	3
Term		12 credits
31512331	ST: Surgical Procedures	4
31512332	ST: Clinical 2	4
31512334	ST: Clinical 3	4
		<b>Total credits 36-38</b>

# course descriptions

## Applied Microbiology

**3180631.....2 credits**

Directs the learner's understanding of aseptic techniques, antimicrobial methods, specimen collection, preparation of cultures, body defenses against microorganisms, the infectious process, and the transmission of disease-causing organisms. Students learn such techniques as standard and transmission-based precautions, sanitization, disinfection, sterilization, preparation of cultures, and microscopic slide preparations with simple staining and gram staining.

## Culture of Healthcare

**10501104.....2 credits**

An introduction to the culture of healthcare for students interested in working in various healthcare settings. Learners examine professionalism, interpersonal and written communication skills, problem-solving skills and patient privacy and confidentiality issues as they relate to healthcare.

## General Anatomy & Physiology

**10806177..... 4 credits**

Examines basic concepts of human anatomy and physiology as they relate to health sciences. Using a body systems approach, the course emphasizes the interrelationships between structure and function at the gross and microscopic levels of organization of the entire human body. It is intended to prepare health care professionals who need to apply basic concepts of whole body anatomy and physiology to informed decision making and professional communication with colleagues and patients.

*Prerequisite: High School GPA of 3.0 or Accuplacer Reading Skills of 236 or ACT of 15, or General Chemistry 10806134 with a grade of "C" or better, or General Biology 10806114 with a grade of "C" or better, or Human Body in Health & Disease 10509102 with a "C" or better. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.*

## Medical Terminology

**10501101..... 3 credits**

Focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Learners practice formation, analysis, and reconstruction of terms. Emphasizes spelling, definition, and pronunciation. Introduces operative, diagnostic, therapeutic, and symptomatic terminology of all body systems as well as systemic and surgical terminology.

## Microbiology

**10806197..... 4 credits**

Examines microbial structure, metabolism, genetics, growth, and the relationship between humans and microorganisms. Disease production, epidemiology, host defense mechanisms, and the medical impact of microbes in the environment, industry, and biotechnology are also addressed.

*Prerequisite: General Anatomy & Physiology 10806177 with a "C" or better, or General Biology 10806114 with a "C" or better, or Plant Biology 10806184 with a grade of "C" or better*

## ST: Clinical 1

**31512330 .....3 credits**

Applies basic surgical theories, principles, and procedural techniques in the operating room. Students begin to function as team members under the guidance of the instructor and authorized clinical personnel. Surgical rotation case requirements are documented.

*Prerequisites: Introduction to Surgical Technology 31512327, Fundamentals 1 31512328, and CPR certification*

## ST: Clinical 2

**31512332..... 4 credits**

Further experience in a clinical setting allows the student to continue to improve technical skills while accepting more responsibilities during surgical procedures. Surgical rotation case requirements are documented.

*Prerequisites: ST: Clinical 1 31512330 and ST: Fundamentals 2 31512329; Corequisite: ST: Surgical Procedures 31512331*

## ST: Clinical 3

**31512334 ..... 4 credits**

Enhances the student's technical experience and employee skills. Serves as a transition between student and employee. Applies advanced skills for the entry-level surgical technologist in the clinical setting. Surgical rotation case requirements are documented.

*Prerequisite: ST: Clinical 2 31512332; Corequisite: ST: Surgical Procedures 31512331*

## ST: Fundamentals 1

**31512328 ..... 4 credits**

Includes the basic clinical skills needed by the surgical technologist in the scrub role. Learners develop skills in disinfection, sterilization, identifying basic instrumentation, supplies, drains, catheters, dressings and sponges. Includes practice experience in creating a sterile field, draping, passing instruments and supplies, performing counts, and preparing supplies.

*Prerequisites: Admission to Surgical Technologist program 315121, Medical Terminology 10501101, and General Anatomy & Physiology 10806177*

## ST: Fundamentals 2

**31512329 .....2 credits**

Builds upon and reinforces the role of the surgical technologist as a member of the operating room team. Discusses care of the patient before, during, and after surgery with emphasis on surgical wounds, wound closure materials, and vital signs. Includes lecture and lab experiences.

*Prerequisites: ST: Introduction to Surgical Technology 31512327 and ST: Fundamentals 1 31512328*

## ST: Introduction to Surgical Technology

**31512327..... 4 credits**

Provides the foundational knowledge of infection control and asepsis. Legal and ethical issues encountered in the healthcare environment are explored. Simulated laboratory practice enables the learner to develop beginning technical skills.

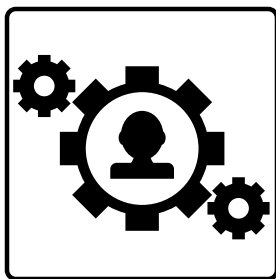
*Prerequisites: Admission to Surgical Technologist program 315121, Medical Terminology 10501101, and General Anatomy & Physiology 10806177*

## ST: Surgical Procedures

**31512331 ..... 4 credits**

Provides the foundational knowledge of surgical core and specialty procedures. Examines the pathophysiology diagnostic interventions, and surgical interventions for a variety of surgical procedures. Incorporates integration of basic health sciences and technical knowledge to complete a plan of action for a surgical procedure.

*Prerequisites: ST: Fundamentals 2 31512329 and Clinical 1 31512330*



# welding

## Technical Diploma Program Code: 31-442-1 Total Credits: 33-34

The Welding program at Mid-State prepares graduates for a wide variety of welding jobs in production, maintenance, construction, manufacturing, and servicing industries. You will receive hands-on instruction and practice in a number of welding processes, including shielded metal arc, gas tungsten arc, gas metal arc, submerged arc, oxyacetylene cutting and brazing, plasma arc, and arc-air cutting. You will also become familiar with various types of metals, fabrication of metals, and welding under industry codes. Successful completion of this program prepares you to take welding certification tests.

**Estimated tuition and fees:** [mstc.edu/programcosts](http://mstc.edu/programcosts)

### ACADEMIC ADVISOR

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### CHECKLIST:

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

- FAFSA ([www.fafsa.gov](http://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

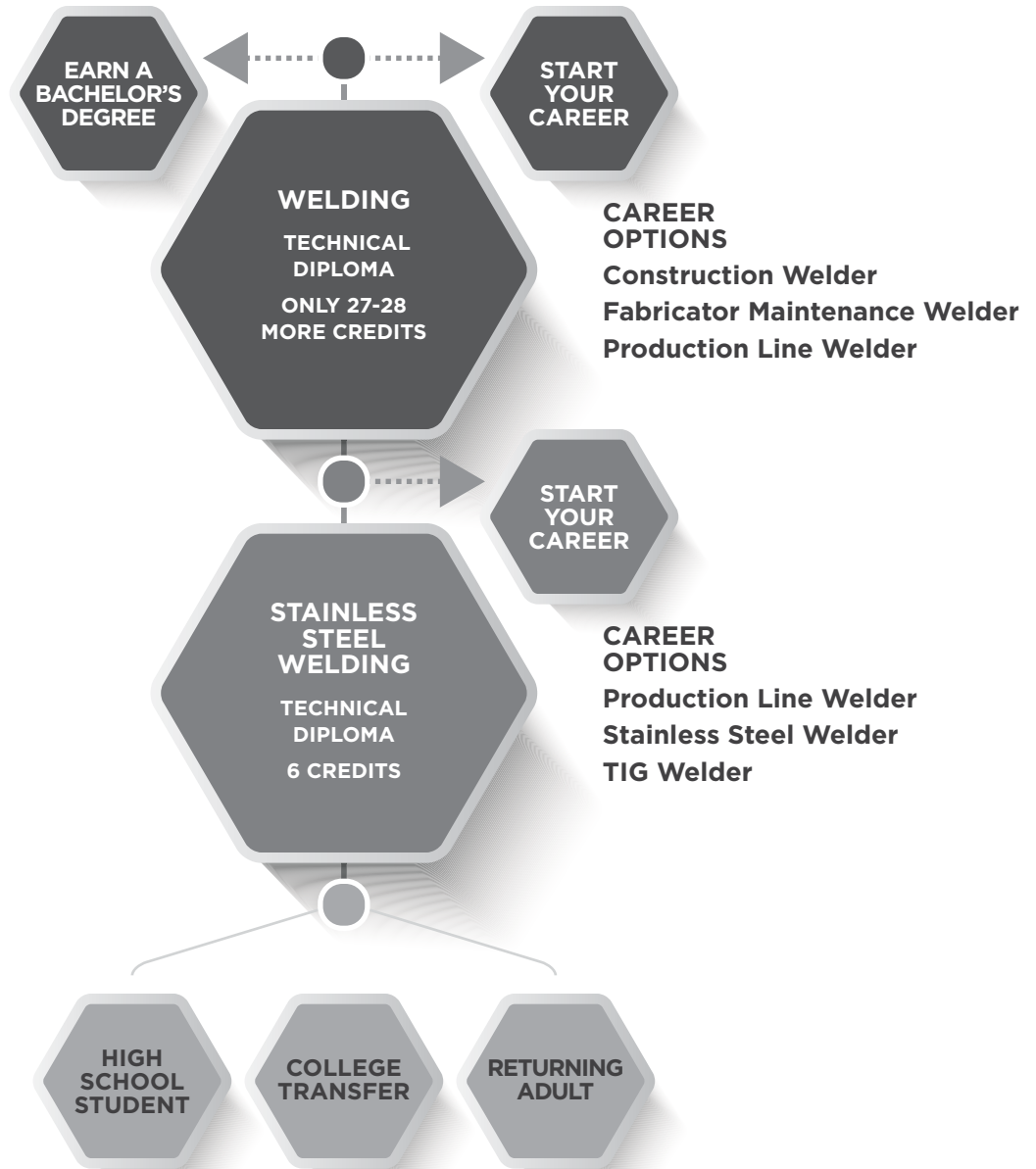
**MARSHFIELD CAMPUS**  
2600 West 5th Street  
Marshfield, WI 54449

**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

For more information and additional opportunities, visit [mstc.edu/transfer](http://mstc.edu/transfer).



College Credit • Dual Credit • Military Experience • Work Experience  
Learn about Credit for Prior Learning at [mstc.edu/cpl](http://mstc.edu/cpl).

**BEGIN AT ANY POINT  
IN THE PATHWAY**

## OTHER OPTIONS

### RELATED PROGRAMS

- Industrial Mechanical Technician
- Machine Tool Technician
- Manufacturing Operations Management

### APPRENTICESHIP OPPORTUNITIES

- Ironworker Apprenticeship



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		17-18 credits
10442117	Welding Fundamentals 1	1
10442118	Welding Fundamentals 2	1
10442101	Basic GTAW (TIG)	2
10442110	Gas Metal Arc Welding (GMAW)	3
10442112	Welding Print Reading	2
10442130	Shielded Metal Arc Welding (SMAW)	2
10442132	Metal Cutting Welding	2
10462107	Industrial Safety	2
10804107	College Mathematics	3
	<b>-or-</b>	
32420320	Math for Manufacturing	2
Term		16 credits
10442102	Intermediate GTAW (TIG)	2
10442103	Advanced GTAW (TIG) <b>-or-</b>	
10442115	Welding Fabrication Techniques	2
10442111	Intermediate GMAW/FCAW	3
10442159	Welding Metallurgy	2
10442163	Weld Inspections and Testing	1
10457119	Fabrication Fundamentals 1	1
10457120	Fabrication Fundamentals 2	1
10462132	Machine Shop Fundamentals	3
10623106	Intro to AutoCAD	1
		<b>Total credits 33-34</b>

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](http://mstc.edu/classfinder).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		9 credits
10442117	Welding Fundamentals 1	1
10442118	Welding Fundamentals 2	1
10442101	Basic GTAW (TIG)	2
10442110	Gas Metal Arc Welding (GMAW)	3
10462107	Industrial Safety	2
Term		9 credits
10442111	Intermediate GMAW/FCAW	3
10442112	Welding Print Reading	2
10442130	Shielded Metal Arc Welding (SMAW)	2
10442132	Metal Cutting Welding	2
Term		7-8 credits
10442102	Intermediate GTAW (TIG)	2
10442159	Welding Metallurgy	2
10442163	Weld Inspections and Testing	1
10804107	College Mathematics	3
	<b>-or-</b>	
32420320	Math for Manufacturing	2
Term		8 credits
10442103	Advanced GTAW (TIG) <b>-or-</b>	
10442115	Welding Fabrication Techniques	2
10457119	Fabrication Fundamentals 1	1
10457120	Fabrication Fundamentals 2	1
10462132	Machine Shop Fundamentals	3
10623106	Intro to AutoCAD	1
		<b>Total credits 33-34</b>

## Advanced GTAW (TIG)

**10442103 .....2 credits**

Students learn complete penetration stainless steel pipe welds in the 5G and 6G positions.

*Corequisite: Intermediate GTAW (TIG) 10442102*

## Basic GTAW (TIG)

**10442101 .....2 credits**

An introduction to the gas tungsten arc welding (GTAW) process commonly known as TIG, including the necessary safety and care of equipment and supplies. The student develops skills with the common production welding joints and materials.

## College Mathematics

**10804107 .....3 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.*

## Fabrication Fundamentals 1

**10457119 .....1 credit**

An introduction to structural shapes and sheet metal fabrication. Presents fabrication techniques, metal selection, and layout, cutting, bending, drilling, threading, and joining using manual equipment and techniques. Information is presented to the student and followed up with lab activities to provide a hands-on experience. Emphasizes developing an understanding of the tools, techniques, safe work habits, and application of sheet metal fabrication skills.

## Fabrication Fundamentals 2

**10457120 .....1 credit**

An introduction to plate steel and heavy fabrication. Presents fabrication techniques using heavy fabrication equipment. CNC Cutting, Plate and Tube bending, Sawing and Shearing equipment will be presented and followed up with lab activities to provide a hands-on experience. Emphasizes developing an understanding of the equipment, techniques, safe work habits, and application of heavy metal fabrication skills.

## Gas Metal Arc Welding (GMAW)

**10442110 .....3 credits**

In this course, you develop skills of welding on steel sheet metals and plates using the GMAW process. Emphasis is placed on axial spray, pulse spray, and short circuit mode of transfer. Upon completion of this course, the student is able to weld in several positions, read basic weld symbols, and have an understanding of written welding procedures.

## Industrial Safety

**10462107 .....2 credits**

Provides an overview of safety, health, and environmental issues as they relate to industry. Various types of hazards and the controls and equipment used to reduce risks from hazards are discussed. Focuses on understanding the Occupational Safety and Health Administration (OSHA) and its function as well as other regulatory and enforcement agencies associated with industrial safety, health, and the environment.

## Intermediate GMAW/FCAW

**10442111 .....3 credits**

Builds skills with the GMAW process and performing welds on stainless steel and aluminum sheet metal and plate. Students are able to differentiate and select proper electrodes and shielding gases, and properly adjust parameters. Emphasizes axial spray, pulse spray, and short circuit mode of transfer depending on base metal. Students learn about and practice the FCAW process, including types of electrodes, fluxes, and shielding gases used in these processes. Students are able to weld in several positions, read some basic weld symbols, and have a basic understanding of written welding procedures.

*Prerequisite: Gas Metal Arc Welding (GMAW) 10442110*

## Intermediate GTAW (TIG)

**10442102 .....2 credits**

In this course students weld in the horizontal and vertical positions on stainless steel and aluminum. Pulsed current is applied to stainless steel weldments. Complete penetration groove welds in stainless steel are practiced and evaluated.

*Corequisite: Basic GTAW (TIG) 10442101*

## Intro to AutoCAD

**10623106 .....1 credit**

Learners will develop practical approaches to constructing basic 2D drawings in AutoCAD software by drawing, modifying, and assigning appropriate layer properties. Learners will also analyze length and area of shapes drawn in AutoCAD, summarize details through dimensions and annotations added to the drawings, and format the drawings for printing. Prior experience with computers is recommended.



## Machine Shop Fundamentals

**10462132.....3 credits**

Students participating in this class will be introduced to common machine tools and their functions. Classroom activities and hands-on lab exercises will be used to introduce participants to some of the most common applications in machining. Lab activities will introduce students to shop safety and identification of machine tools. Students will also gain understanding of the basic processes performed with different machine tools and basic machine set up and operations.

## Math for Manufacturing

**32420320 .....2 credits**

Studies Welding and Fabrication problems involving calculations with fractions, decimals, percentages, measurements and conversions. Includes work with the metric system, measurement conversion, shapes, formulas for circumference area and volume and use of a scientific calculator. Formulas with application to bending metal are also studied.

*Prerequisite: Admission into Machine Tool Technician program 324201, Welding program 314421, Gas Tungsten Arc Welding (Stainless Steel) 304427, or consent of instructor*

## Metal Cutting Welding

**10442132.....2 credits**

Covers oxy-fuel cutting, plasma arc cutting, air-carbon arc cutting, mechanical cutting, and nontraditional cutting. Individual parts are produced using automatic and manual equipment. Both shop and field applications are practiced. The parts may be joined by welding to complete an assembly. Students may work in a team environment to complete assignments. This course is available to Welding program students only.

## Shielded Metal Arc Welding (SMAW)

**10442130 .....2 credits**

Begins to build the knowledge and skills of the SMAW process commonly known as stick welding. Students are able to weld in several positions, read some basic weld symbols, and have a basic understanding of written welding procedures.

## Weld Inspections and Testing

**10442163.....1 credit**

Emphasizes measurement of weld defects and assessment of weld quality conformance to common welding codes. Students conduct etch tests, bend tests, and break tests on welds. Visual inspection, dye penetrant testing, and magnetic particle testing are practiced.

## Welding Fabrication Techniques

**10442115 .....2 credits**

Students fabricate parts from prints and weld assemblies with a specified welding process. Cutting and forming may be required prior to assembly. Depending on the size and complexity of the project, students may be asked to work in a team to complete an assignment.

*Prerequisites: Admission to Welding program 314421 and Intermediate GTAW (TIG) 10442102*

## Welding Fundamentals 1

**10442117 .....1 credit**

An introduction to fundamental welding techniques with an emphasis on safe work habits that covers the processes of FCAW, GMAW, and OXY-Fuel cutting. Classroom instruction paired with lab activities are designed to provide fundamental skills in each of the welding processes covered in the class.

## Welding Fundamentals 2

**10442118 .....1 credit**

An introduction to fundamental welding techniques with an emphasis on safe work habits that covers the processes of GTAW, SMAW and Plasma cutting. Classroom instruction paired with lab activities are designed to provide fundamental skills in each of the welding processes covered in the class.

## Welding Metallurgy

**10442159.....2 credits**

Investigates the effects of welding on the mechanical properties of metals. Learners explore hardness, strength, and weldability of various metals. Concepts are applied in various activities including heat treating, hardness testing, and tensile testing.

## Welding Print Reading

**10442112 .....2 credits**

Students study print format, line types, orthographic views, dimensioning, welding symbols, and bill of materials. Students apply concepts by creating and fabricating from prints in individual and group activities.