

Mid-State Technical College

# PROGRAM INFORMATION GUIDES

2024-2025



# ACCOUNTING

## Associate in Applied Science (AAS) Program Code: 10-101-1 Total Credits: 60

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. 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:

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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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Adams, WI 53910

**MARSHFIELD CAMPUS**  
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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



# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## CERTIFICATE

### PAYROLL FOUNDATIONS

Certificate • 6 Credits

### TAX PREPARATION

Certificate • 6 Credits

### QUICKBOOKS & OFFICE ESSENTIALS

Certificate • 6 Credits

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## TECHNICAL DIPLOMA

### ACCOUNTING ASSISTANT

Technical Diploma • 27 Credits

#### Start Your Career

- Accounting Technician
- Auditing Clerk
- Bookkeeper

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### ACCOUNTING

Associate in Applied Science (AAS) • 60 Credits

#### Start Your Career

- Accountant
- Accounting Assistant
- Accounts Receivable/Payable Specialist

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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## SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
1010120	Payroll Accounting ☑	3
1010140	Accounting 1 ☑	3
10102101	Intro to Business ☑	3
10103106	Microsoft Office-Introduction ☑	3
10801195	Written Communication ☑ -or-	
10801136	English Composition 1 ☑	3
Term		15 credits
10101106	Excel for Accounting	3
10101123	Income Tax Accounting ☑	3
10101129	QuickBooks Applications	3
10101142	Accounting 2 ☑	3
10804107	College Mathematics ☑ -or-	
10804189	Introductory Statistics ☑	3
Term		15 credits
10101110	Intermediate Accounting 1	3
10101128	Managerial Finance	3
10101141	Business Taxation	3
10102104	Business Law ☑ -or-	
10102110	Employment Law	3
10809195	Economics ☑	3
Term		15 credits
10101125	Cost and Managerial Accounting	3
10101158	Accounting Capstone -or-	
10101159	Accounting Internship	3
10801198	Speech ☑ -or-	
10801196	Oral/Interpersonal Communication ☑	3
10809122	Intro to American Government ☑ -or-	
10809172	Introduction to Diversity Studies ☑ -or-	
10809196	Intro to Sociology ☑	3
10809198	Intro to Psychology ☑ -or-	
10809188	Developmental Psychology ☑	3
<b>Total credits 60</b>		

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

Please Note:

- This curriculum sequence is only for student planning. Actual student schedules will vary depending on course availability.
- This program is offered online and classes are in an 8-week format.
- Program completion time may vary based on student scheduling and course availability. For details, go to [mstc.edu/schedule](http://mstc.edu/schedule).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10101140	Accounting 1 ☑	3
10103106	Microsoft Office-Introduction ☑	3
Term		9 credits
10101129	QuickBooks Applications	3
10101142	Accounting 2 ☑	3
10801195	Written Communication ☑ -or-	
10801136	English Composition 1 ☑	3
Term		9 credits
10101120	Payroll Accounting ☑	3
10102101	Intro to Business ☑	3
10804107	College Mathematics ☑ -or-	
10804189	Introductory Statistics ☑	3
Term		6 credits
10101106	Excel for Accounting	3
10101123	Income Tax Accounting ☑	3
Term		6 credits
10101110	Intermediate Accounting 1	3
10102104	Business Law ☑ -or-	
10102110	Employment Law	3
Term		9 credits
10101125	Cost and Managerial Accounting	3
10801198	Speech ☑ -or-	
10801196	Oral/Interpersonal Communication ☑	3
10809198	Intro to Psychology ☑ -or-	
10809188	Developmental Psychology ☑	3
Term		9 credits
10101124	Business Taxation	3
10101128	Managerial Finance	3
10809195	Economics ☑	3
Term		6 credits
10101158	Accounting Capstone -or-	
10101159	Accounting Internship	3
10809122	Intro to American Government ☑ -or-	
10809172	Introduction to Diversity Studies ☑ -or-	
10809196	Intro to Sociology ☑	3
<b>Total credits 60</b>		

### MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Accounting 1

**10101140.....3 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 2

**10101142.....3 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 1 10101140*

## 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, and tax accounting are used. The project simulates many of the tasks students are expected to perform as accounting professionals.

*Prerequisite: Minimum of 21 credits of 101 program courses.*

## Accounting Internship

**10101159.....3 credits**

Opportunity for students to apply accounting or business skills in a real-life business environment. Activities may include working with accounts receivable and accounts payable, bank and account reconciliations, accounts payable preparation, spreadsheet work and development, preparing and analyzing financial reports, tax return preparation, processing payroll, job costing, general ledger accounting, and other business-related duties as requested by the employer.

*Prerequisites: Intermediate Accounting 1 10101110, QuickBooks Applications 10101129, Income Tax Accounting 10101123, Payroll Accounting 10101120, and Instructor Consent*

## 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.

## Business Taxation

**10101141.....3 credits**

A study of federal income taxation as applicable to C corporations, S corporations, limited liability companies, partnerships, estates and trusts. Both taxable entities and flow-through entities will be considered. Specific attention will be given to general concepts, tax return form preparation, and research.

## College Mathematics

**10804107.....3 credits**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better*

## Cost and Managerial 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 2 10101142*

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

# COURSE DESCRIPTIONS

## 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**

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

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

## 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 1 10101140 and Microsoft Office-Introduction 10103106 or Excel-Beginning 10103123*

## Income Tax Accounting

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

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

## Intermediate Accounting 1

**10101110.....3 credits**

This course builds upon financial accounting concepts covered in Accounting 1 and Accounting 2. 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 2 10101142*

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to 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, social organization, and workplace issues.

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

## Introduction to Diversity Studies

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

This course introduces the study of diversity from a local to a global perspective using a holistic, interdisciplinary approach that encourages exploration and prepares students to work in a diverse environment. The course introduces basic diversity concepts, examines the impact of bias and power differentials among groups, explores the use of culturally responsive communication strategies, and compares forces that shape diversity in an international context.

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

## Introductory Statistics

**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 2.6 and MMM\_2 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better*



# COURSE DESCRIPTIONS

## 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 1 10101140*

## 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. This course prepares students for the Associate level MOS Certification exams for Word, Excel, PowerPoint, and Outlook. Students should possess basic keyboarding, mouse, and Windows 10 skills. Students may develop these skills in the Academic Learning Center 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## 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.

*Corequisite: 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.

## Speech ☑

**10801198 .....3 credits**

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

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

## Written Communication ☑

**10801195 .....3 credits**

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

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



# ACCOUNTING ASSISTANT

**Technical Diploma**  
**Program Code: 31-101-1**  
**Total Credits: 27**

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.

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## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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## PROGRAM OUTCOMES

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

- Process financial transactions throughout the accounting cycle.
- Evaluate financial information to support decision making.
- Process payroll.

## 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 assessments in Accounting 2 and Payroll Accounting.

## 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### **10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		12 credits
10101120	Payroll Accounting	3
10101140	Accounting 1	3
10103106	Microsoft Office-Introduction	3
10801195	Written Communication	3
Term		15 credits
10101106	Excel for Accounting	3
10101123	Income Tax Accounting	3
10101129	QuickBooks Applications	3
10101142	Accounting 2	3
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<b>Total credits</b>		<b>27</b>

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- This curriculum sequence is only for student planning. Actual student schedules will vary depending on course availability.
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Term		6 credits
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10801195	Written Communication	3
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**Multiple Measures Reading (MMR):** High school GPA of 2.6 and successful completion of 2.0 credits of high school literature courses with a "C" or better

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Accounting 1

**10101140.....3 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 2

**10101142.....3 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 1 10101140*

## College Mathematics

**10804107.....3 credits**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better*

## 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 1 10101140 and Microsoft Office-Introduction 10103106 or Excel-Beginning 10103123*

## 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. This course prepares students for the Associate level MOS Certification exams for Word, Excel, PowerPoint, and Outlook. Students should possess basic keyboarding, mouse, and Windows 10 skills. Students may develop these skills in the Academic Learning Center 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.

*Corequisite: 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.

## Written Communication

**10801195.....3 credits**

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

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



# ADVANCED EMERGENCY MEDICAL TECHNICIAN

## Technical Diploma Program Code: 30-531-6 Total Credits: 4

Designed for those who possess a valid Wisconsin EMT license, the Advanced Emergency Medical Technician (AEMT) program at Mid-State prepares students with the knowledge and skills needed to work as an entry-level AEMT, with an understanding of the basic and advanced use of equipment found on an ambulance and ability to care for critical and emergent patients.

This program consists of asynchronous lectures, practical skill labs, laboratory simulations, and pre-hospital clinical experiences. Successfully completing it qualifies you to take the National Registry of Emergency Medical Technicians' certification exam required to apply for state licensure. Graduates of the Advanced Emergency Medical Technician technical diploma may advance into either the EMT-Paramedic program or Paramedic Technician program.

Mid-State's Advanced Emergency Medical Technician program prepares students to obtain the required licensure to be employed/practice in the state of Wisconsin. The College does not guarantee its curriculum matches the requirements for preparation, examination, or licensure for other states.

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

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

# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### ADVANCED EMERGENCY MEDICAL TECHNICIAN

Technical Diploma • 4 Credits

#### Start Your Career

- Advanced Emergency Medical Technician
- Emergency Department Technician
- Urgent Care Technician

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Criminal Justice-Corrections & Community Advocacy
- Criminal Justice-Law Enforcement 720 Academy
- Criminal Justice-Studies
- Emergency Medical Technician
- Emergency Services Management
- EMT-Paramedic
- Fire Service Certification
- Paramedic Technician

## PROGRAM OUTCOMES

Employers will expect you, as an Advanced Emergency Medical Technician graduate, to be able to:

- Meet state competencies for AEMT certification.
- Demonstrate professional behavior.
- Communicate effectively with others.
- Demonstrate AEMT skills associated with established standards and procedures for a variety of patient encounters.
- Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
- Prepare for incident response and EMS operations.

## 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 Advanced 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/advanced-emergency-medical-technician](http://mstc.edu/programs/advanced-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 AEMT 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 Advanced Emergency Medical Technician's examination, students must:

- Receive a minimum grade of "C" in all courses within the Emergency Medical Technician 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.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

**10831104 .....3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE CURRICULUM OPTIONS

<b>Term</b>	<b>4 credits</b>
30531318 Advanced EMT	4
	<b>Total credits 4</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/schedule](http://mstc.edu/schedule).

## NOTES:

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## COURSE DESCRIPTIONS

### Advanced EMT

**30531318 ..... 4 credits**

Program graduates will demonstrate competency in the initiation of intravenous therapy, administration of select medications as approved by DHS and local medical directors via intravenous, intramuscular, subcutaneous, sublingual, and inhalation routes. Potential occupations include Emergency Medical Technician, Ambulance Attendant, Firefighter, ER-Technician.



# ADVANCED MANUFACTURING TECHNOLOGY

## Associate in Applied Science (AAS) Program Code: 10-664-2 Total Credits: 62

The Advanced Manufacturing Technology program combines foundational coursework in the areas of electromechanical and automation systems with advanced coursework in Industry 4.0 concepts and quality manufacturing. Students gain hands-on experience with tools and equipment used in the field.

In this program you'll learn to operate and program robotics, troubleshoot computer networks, and interface digital logic circuits. You'll set up, make, and maintain automated systems, such as machines interacting with machines and machines making decisions (AI). You'll also use sensors within the system to map, explore, and execute a variety of tasks, such as deliver, pick up, and sort.

**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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- Financial Aid Form(s)  
Form(s): \_\_\_\_\_
- Follow-Up Appointment:  
Where: \_\_\_\_\_  
When: \_\_\_\_\_  
With: \_\_\_\_\_
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Mid-State Technical College  
Student Services Assistant  
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- Other: \_\_\_\_\_  
\_\_\_\_\_



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

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

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### ADVANCED MANUFACTURING TECHNOLOGY

Associate in Applied Science (AAS) • 62 Credits

#### Start Your Career

- Automation Technician
- Control Systems Technician
- Mechatronics Technician

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

UW-Stout.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Industrial Mechanical Technician
- Manufacturing Operations Management
- Metal Fabrication
- Precision Machining Technician
- Stainless Steel Welding
- Welding

### APPRENTICESHIP OPPORTUNITIES

- Electrical & Instrumentation Technician Apprenticeship

## PROGRAM OUTCOMES

Employers will expect you, as an Advanced Manufacturing Technology graduate, to be able to:

- Apply state and national safety rules to the manufacturing systems environment.
- Analyze automation within a complex manufacturing system.
- Manage advanced manufacturing systems for operational efficiency and cost control.
- Analyze technical specifications for implementation of manufacturing systems, modules, and components.
- Explore a Proportional Integral Derivative (PID) control system to achieve a desired outcome in a manufacturing outcome.
- Integrate industrial control systems into manufacturing processes.
- Apply electronic principles to devices within a complex manufacturing 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.

### 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

### ADDITIONAL COURSES AS NEEDED

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

#### **College Reading and Writing 1**

#### **10831104 .....3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

#### **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.

## SAMPLE FULL-TIME CURRICULUM OPTION

<b>Term</b>		<b>16 credits</b>
10462106	Mechanical Power Transmission	3
10605105	Electrical Circuits I	3
10605117	Automation 1 - Beginning PLC	3
10801136	English Composition 1	3
10804118	Intermediate Algebra with Applications	4
<b>Term</b>		<b>14 credits</b>
10462133	Electric Controls for Industrial Automation	3
10605118	Automation 2 - Advanced PLC	3
10623114	Intro to Inventor	1
10664110	Intro to Mechatronics	2
10664120	Intro to Industrial Internet of Things	2
10801198	Speech	3
<b>Term</b>		<b>15 credits</b>
10605119	Automation 3 - HMI's & Robotics	2
10605145	Industrial Networking	2
10623112	Manufacturing Practices	2
10664104	Industrial Control Systems Applications	2
10664115	Engineering Drawings	2
10664121	Vision and Smart Sensors	2
10809198	Intro to Psychology <b>-or-</b>	
10809188	Developmental Psychology	3
<b>Term</b>		<b>17 credits</b>
10196189	Team Building and Problem Solving	3
10462120	Industrial Hydraulics & Pneumatics	3
10664123	Advanced Industrial Robotics	2
10664124	Integrated Systems Capstone	3
10809195	Economics	3
10804196	Trigonometry with Applications	3
<b>Total credits 62</b>		

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

<b>Term</b>		<b>10 credits</b>
10605105	Electrical Circuits I	3
10605117	Automation 1 - Beginning PLC	3
10804118	Intermediate Algebra with Applications	4
<b>Term</b>		<b>8 credits</b>
10605118	Automation 2 - Advanced PLC	3
10623114	Intro to Inventor	1
10664110	Intro to Mechatronics	2
10664120	Intro to Industrial Internet of Things	2
<b>Term</b>		<b>8 credits</b>
10462106	Mechanical Power Transmission	3
10605119	Automation 3 - HMI's & Robotics	2
10801136	English Composition 1	3
<b>Term</b>		<b>6 credits</b>
10462133	Electric Controls for Industrial Automation	3
10801198	Speech	3
<b>Term</b>		<b>6 credits</b>
10623112	Manufacturing Practices	2
10664115	Engineering Drawings	2
10664121	Vision and Smart Sensors	2
<b>Term</b>		<b>9 credits</b>
10196189	Team Building and Problem Solving	3
10462120	Industrial Hydraulics & Pneumatics	3
10804196	Trigonometry with Applications	3
<b>Term</b>		<b>7 credits</b>
10605145	Industrial Networking	2
10664104	Industrial Control Systems Applications	2
10809198	Intro to Psychology <b>-or-</b>	
10809188	Developmental Psychology	3
<b>Term</b>		<b>8 credits</b>
10664123	Advanced Industrial Robotics	2
10664124	Integrated Systems Capstone	3
10809195	Economics	3
<b>Total credits 62</b>		

### MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Advanced Industrial Robotics

**10664123.....2 credits**

In this course, students explore advanced programming techniques for industrial robots. They examine interfacing peripheral devices such as programmable logic controllers, industrial sensors, and human-machine interfaces to a robot. Upon completion of the course, students will be able to apply advanced programming techniques to industrial robots.

## 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 & Robotics

**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*

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## 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*

## Electrical Circuits I

**10605105 .....3 credits**

The study of Ohm's Law and its application to D.C. circuits. Major topics include: Ohm's Law, series circuits, parallel circuits, combination circuits, Kirchhoff's Laws, and power relationships.

*Corequisite: Intermediate Algebra with Applications 10804118*

## Engineering Drawings

**10664115 .....2 credits**

This course will acquaint the apprentice with the interpretation of engineering prints and other technical and manufacturing documentation. The primary focus of the course will be on that part of manufacturing most closely related to machining and tooling. Background information is provided relative to the process used to create and finish the product or piece part on the prints being studied.

## English Composition 1

**10801136 .....3 credits**

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

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

## 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*

# COURSE DESCRIPTIONS

## Industrial Control Systems Applications

**10664104 .....2 credits**

In this course, learners develop machine process automation control systems with temperature, pressure, flow, and level controls. Learners investigate the utilization of PID loops in PLC program design. Learners program a PLC using vision, smart sensors, Servos, motor controls, and analog IO. Learners develop PLC programs including Human Machine Interface (HMI) with displays for machine input and output data. Upon completion of the course, learners will be able to build a PLC motion project for basic machine process automation control systems.

## Industrial Networking

**10605145 .....2 credits**

Students will study network infrastructure and communication languages commonly found in the industrial setting.

## Integrated Systems Capstone

**10664124 .....3 credits**

In this course, students design a complex integrated automation system. They use industrial robotics, programmable logic controllers, pneumatics/hydraulics, and sensors to develop the system. Upon successful completion, students will be able to design, program, troubleshoot, and improve a functional industrial automation system.

## 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 2.6 and MMM\_1 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Pre-Algebra 10834109 with a "C" or better*

## Intro to Industrial Internet of Things

**10664120 .....2 credits**

In this course, learners are introduced to theoretical and practical topics of the Industrial Internet of Things (IIoT). The learner investigates the range of sensor and actuator devices available, ways in which they communicate and compute, methods for getting information to and from IIoT-enabled devices, and ways of visualizing and processing data acquired from the IIoT. Upon completion, learners will utilize hardware and software to construct a sensor network within an existing system and utilize industry standard tools to visualize the acquired data.

## 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 Mechatronics

**10664110 .....2 credits**

In this course, learners are introduced to microprocessor controlled electromechanical systems. The learner examines how individual components work, and how they are integrated into simple systems. Upon completion of the course, learners will understand what technicians do in the workplace and how industry utilizes Mechatronics in advanced manufacturing.

*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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## 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).

## 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.

## Speech ☑

**10801198 .....3 credits**

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

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

# COURSE DESCRIPTIONS

## **Team Building and 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.

## **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.

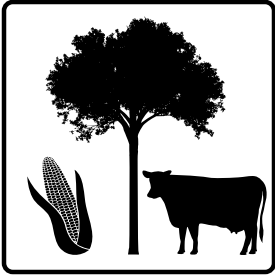
*Prerequisite: ACT Math score of 22 or Intermediate Algebra with Applications 10804118 with a "C" or better*

## **Vision and Smart Sensors**

**10664121 .....2 credits**

In this course, learners will utilize 2D cameras, lighting systems and smart sensors in machine applications to provide imaging-based automatic inspection and analysis for such applications as automatic inspection, process control, and robot guidance. Learners will use vision systems to: sort good and bad parts; identify, position and orient objects images for robot guidance and orientation using edge detection; blob detection; pattern recognition; image acquisition; and bar code and QR code recognition. Learners will integrate smart sensors into PLC machine applications. Upon completion of this course learners will apply camera and smart sensors into a machine process application.





# AGRIBUSINESS AGRONOMY TECHNICIAN

## Technical Diploma Program Code: 31-006-4 Total Credits: 27

Students in Mid-State's Agribusiness Agronomy Technician program gain a deep understanding of the science and technology of using plants as a source of food. They also acquire the specialized skills needed for precision agriculture applications and regulatory requirements. The program will prepare you to use the latest technology to help farmers yield maximum production from the land. You'll also get hands-on experience producing a crop, keeping pests away, making soil more fertile, marketing commodities, and managing a farm.

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

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

# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## CERTIFICATE

### AGRICULTURE DIESEL ENGINES AND EQUIPMENT

Certificate • 5 Credits

### AGRONOMY EQUIPMENT BASICS

Certificate • 5 Credits

### INTRODUCTION TO AGRICULTURE BUSINESS

Certificate • 8 Credits

### INTRODUCTION TO AGRICULTURE TOPICS

Certificate • 10 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## TECHNICAL DIPLOMA

### AGRIBUSINESS AGRONOMY TECHNICIAN

Technical Diploma • 27 Credits

#### Start Your Career

- Grower
- Field Worker
- Irrigator

### FARM OPERATION

Technical Diploma • 27 Credits

#### Start Your Career

- Production Agriculturalist
- Herdsman
- Livestock Breeder

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### AGRIBUSINESS SCIENCE & TECHNOLOGY

Associate in Applied Science (AAS) • 61-62 Credits

#### Start Your Career

- Agronomy Technician
- Herdsman
- Production Agriculture Manager

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Iowa State University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Platteville, UW-River Falls, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governor's University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Arborist Technician
- Utility Tree Trimmer



## PROGRAM OUTCOMES

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

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

## 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 the Principles of Crop Management 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

**10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		14 credits
10090101	Agriculture Business Management	3
10006102	Agribusiness Equipment and Facilities	2
10006104	Introduction to Agriculture Engineering Technology	3
10093102	Intro to Precision Agriculture	3
10093104	Principles of Crop Management	3

Term		13 credits
10006101	Agricultural Computations	3
1006007	Agriculture Internship	2
10070103	Basic Agriculture Electrical, Mechanical, and Irrigation	3
10080105	Intro to Soil Science	3
10093101	Integrated Pest Management 	2

**Total credits 27**

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

Please Note:

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

## NOTES:

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## SAMPLE PART-TIME CURRICULUM OPTION

Term		8 credits
10006102	Agribusiness Equipment and Facilities	2
10006104	Introduction to Agriculture Engineering Technology	3
10093102	Intro to Precision Agriculture	3

Term		6 credits
10006101	Agricultural Computations	3
10080105	Intro to Soil Science	3

Term		6 credits
10090101	Agriculture Business Management	3
10093104	Principles of Crop Management	3

Term		7 credits
1006007	Agriculture Internship	2
10070103	Basic Agriculture Electrical, Mechanical, and Irrigation	3
10093101	Integrated Pest Management 	2

**Total credits 27**

# COURSE DESCRIPTIONS

## **Agribusiness Equipment and 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.

## **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.

## **Agriculture Internship**

**1006007 .....2 credits**

This course provides an opportunity for students to apply concepts of agribusiness classroom study with specific off-campus real-life agricultural experiences at local employers. An organized plan of experiences built around agriculture competencies is planned, supervised, and evaluated by the instructor and cooperating business supervisor.

*Prerequisites: Admission to the Agribusiness and Science Technology or Agronomy Technician program and completion of at least 12 credits of agriculture course work in the areas of 10006, 10070, 10080, 10090, 10091, or 10093.*

## **Basic Agriculture Electrical, Mechanical, and Irrigation**

**10070103 .....3 credits**

Students learn the fundamentals of electrical and irrigation systems related to agricultural equipment and facilities. Electrical topics discussed include safety precautions, Ohm's law, generators, batteries, electric motors, water heaters, overcurrent protection, conductor sizing, and national electrical code requirements. Irrigation topics include an introduction to irrigation systems which includes the study of systems design, pump selection and repair, safety controls, power units, power requirements, power distribution, and basic electrical concepts of irrigation systems.

## **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.

## **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.

## **Introduction to Agricultural Engineering Technology**

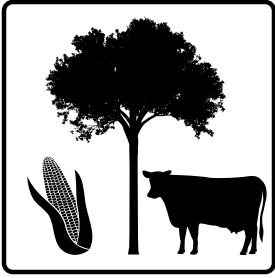
**10006104.....3 credits**

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.

## **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.



# AGRIBUSINESS SCIENCE & TECHNOLOGY

## Associate in Applied Science (AAS) Program Code: 10-006-2 Total Credits: 61-62

Mid-State's Agribusiness 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:

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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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HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

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

## CERTIFICATE

### AGRICULTURE DIESEL ENGINES AND EQUIPMENT

Certificate • 5 Credits

### AGRONOMY EQUIPMENT BASICS

Certificate • 5 Credits

### INTRODUCTION TO AGRICULTURE BUSINESS

Certificate • 8 Credits

### INTRODUCTION TO AGRICULTURE TOPICS

Certificate • 10 Credits

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

## TECHNICAL DIPLOMA

### AGRIBUSINESS AGRONOMY TECHNICIAN

Technical Diploma • 27 Credits

#### Start Your Career

- Grower
- Field Worker
- Irrigator

### FARM OPERATION

Technical Diploma • 27 Credits

#### Start Your Career

- Production Agriculturalist
- Herdsman
- Livestock Breeder

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### AGRIBUSINESS SCIENCE & TECHNOLOGY

Associate in Applied Science (AAS) • 61-62 Credits

#### Start Your Career

- Agronomy Technician
- Herdsman
- Production Agriculture Manager

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Iowa State University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, South Dakota State University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Platteville, UW-River Falls, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governor's University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Arborist Technician
- Utility Tree Trimmer

**PROGRAM OUTCOMES**

Employers will expect you, as an Agribusiness 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 Principles of Crop Management, Agribusiness Financial Analysis, Agriculture Business Management, Intro to Animal Science, and Intro to Precision Agriculture.

**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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

**ADDITIONAL COURSES AS NEEDED**

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

**College Reading and Writing 1**

**10831104 .....3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

**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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		13-14 credits
10006105	Agribusiness Financial Analysis	2
10080105	Intro to Soil Science	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
Term		17 credits
10070103	Basic Agriculture Electrical, Mechanical, and Irrigation Systems	3
10093102	Intro to Precision Agriculture	3
10091103	Animal Nutrition	4
10801195	Written Communication ☑ <b>-or-</b>	
10801136	English Composition 1 ☑	3
10806114	General Biology	4
Term		14 credits
10006104	Intro to Agriculture Engineering Technology	3
10006007	Agriculture Internship <b>-or-</b>	
10006110	Agriculture Capstone	2
10090101	Agriculture Business Management	3
10093104	Principles of Crop Management	3
10801196	Oral/Interpersonal Communication ☑ <b>-or-</b>	
10801198	Speech ☑	3
Term		17 credits
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
10809198	Intro to Psychology ☑ <b>-or-</b>	
10809188	Developmental Psychology ☑	3
<b>Total credits 61-62</b>		

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

Please Note:

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

## 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
10093102	Intro to Precision Agriculture	3
Term		6 credits
10090101	Agriculture Business Management	3
10093104	Principles of Crop Management	3
Term		8 credits
10006101	Agricultural Computations	3
10006102	Agribusiness Equipment & Facilities	2
10003101	Agricultural Diesel Engine Systems	3
Term		7 credits
10006105	Agribusiness Financial Analysis	2
10093101	Integrated Pest Management ☑	2
10801195	Written Communication ☑ <b>-or-</b>	
10801136	English Composition 1 ☑	3
Term		10 credits
10070103	Basic Agriculture Electrical, Mechanical, and Irrigation Systems	3
10801196	Oral/Interpersonal Communication ☑ <b>-or-</b>	
10801198	Speech ☑	3
10806114	General Biology	4
Term		8-9 credits
10006104	Intro to Agriculture Engineering Technology	3
10006007	Agriculture Internship <b>-or-</b>	
10006110	Agriculture Capstone	2
10804107	College Mathematics ☑	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications ☑	4
Term		9 credits
10006103	Introduction to Food Science	3
10809166	Intro to Ethics: Theory & Application ☑	3
10809198	Intro to Psychology ☑ <b>-or-</b>	
10809188	Developmental Psychology ☑	3
<b>Total credits 61-62</b>		

### MULTIPLE MEASURES

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

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

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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



# COURSE DESCRIPTIONS

## 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.

## Agribusiness Financial Analysis

**10006105.....2 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.

## 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.

## Agriculture Capstone

**10006110.....2 credits**

This project-based course gives students the opportunity to demonstrate technical competency of agribusiness classroom study. The project simulates many of the tasks students are expected to perform as an agricultural professional. A capstone research paper and portfolio will be due at the end of this course.

*Prerequisite: Instructor approval.*

## Agriculture Internship

**10006007.....2 credits**

This course provides an opportunity for students to apply concepts of agribusiness classroom study with specific off-campus real-life agricultural experiences at local employers. An organized plan of experiences built around agriculture competencies is planned, supervised, and evaluated by the instructor and cooperating business supervisor.

*Prerequisites: Admission to the Agribusiness and Science Technology or Agronomy Technician program and completion of at least 12 credits of agriculture course work in the areas of 10006, 10070, 10080, 10090, 10091, or 10093.*

## Animal Nutrition

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

Includes classification and function of nutrients, deficiency symptoms, characterization of feedstuffs, and formulation of diets for domestic animals. They are also able to successfully understand the digestive processes of mono-gastric and ruminant animals.

## Basic Agriculture Electrical, Mechanical, and Irrigation Systems

**10070103.....3 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.



# COURSE DESCRIPTIONS

## College Mathematics ☑

**10804107 .....3 credits**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## English Composition 1 ☑

**10801136 .....3 credits**

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

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

## General Biology

**10806114 ..... 4 credits**

Introduces general biological concepts and principles. Emphasis is on cell structure and function, genetics, evolution, and taxonomical relationships. Consideration is also given to diversity among the various kingdoms.

*Prerequisite: High School GPA of 2.6 and MMS\_1 or Accuplacer Reading Skills of 249 or ACT Reading score of 15*

## 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 2.6 and MMM\_1 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Pre-Algebra 10834109 with a "C" or better*

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to 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.

# COURSE DESCRIPTIONS

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to 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.

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **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. Includes informative, persuasive, and occasion speech presentations.

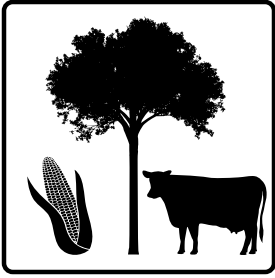
*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 253 and Writing of 262 or ACT of 21 Reading/19 English or completion of College Reading and Writing 1 10831104 with a "C" or better*

## **Written Communication**

**10801195** .....**3 credits**

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

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



# ARBORIST TECHNICIAN

## Associate in Applied Science (AAS) Program Code: 10-001-5 Total Credits: 60-61

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, and tree risk assessment. Our unique aerial component gives our graduates experience working safely in the trees.

**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, WI 53910

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

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

**WISCONSIN RAPIDS CAMPUS**  
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Wisconsin Rapids, WI 54494

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- Military Experience
- National/Standardized Exams
- Transfer Credit
- Work and Life Experience

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

## TECHNICAL DIPLOMA

### UTILITY TREE TRIMMER

Technical Diploma • 16 Credits

#### Start Your Career

- Utility Arborist
- Tree Trimmer
- Pruner

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### ARBORIST TECHNICIAN

Associate in Applied Science (AAS) • 60-61 Credits

#### Start Your Career

- Arborist (commercial, utility, government)
- Landscape Contractor
- Plant Health Care Technician
- Apprenticeship

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Agribusiness Agronomy Technician
- Agribusiness Science & Technology
- Farm Operation

### APPRENTICESHIP OPPORTUNITIES

- Arborist Apprenticeship

## PROGRAM OUTCOMES

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

- Diagnose ornamental plant disorders.
- Identify woody plants by common and scientific name.
- Apply tree biology for arboricultural maintenance practices.
- Adhere to industry safety 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 are notified of TSA reporting in courses where the TSA is assessed.

## 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### 10831104 .....3 credits

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## NOTES:

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## SAMPLE FULL-TIME CURRICULUM OPTION

Term		14 credits
10001118	Landscape Plant Identification ☑	2
10001124	Arborist Skills Introduction	2
10001133	Chainsaw Safety and Operation	2
10001173	Pruning for Structure ☑	2
10801198	Speech ☑ <b>-or-</b>	
10801196	Oral/Interpersonal Communication ☑	3
10806184	Plant Biology	3

Term		16 credits
10001102	Plant Health Care Applicator ☑	2
10001108	Electric Systems & Safety in Arboriculture ☑	1
10001110	Tree Biology	2
10001111	Intro to Horticulture	2
10001125	Arboriculture Operations 1	2
10001150	Workplace Communication in Arboriculture	1
10806112	Principles of Sustainability	3
10809166	Intro to Ethics: Theory & Application ☑	3

Term		16-17 credits
10001105	Dendrology and Silvics	3
10001115	Root Management	2
10001126	Arboriculture Operations 2	2
10001199	Fish, Forest, and Wildlife Management	3
10801136	English Composition 1 ☑	3
10804107	College Mathematics ☑	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications ☑	4

Term		14 credits
10001103	Applied Arboriculture & Urban Forestry	2
10001113	Ornamental Plant Health Care	3
10001149	Ecology for Arboriculture	3
10001198	Soil & Water Resources	3
10809188	Developmental Psychology ☑ <b>-or-</b>	
10809198	Intro to Psychology ☑	3

**Total credits 60-61**

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		8 credits
10001118	Landscape Plant Identification ☑	2
10001124	Arborist Skills Introduction	2
10001133	Chainsaw Safety and Operation	2
10001173	Pruning for Structure ☑	2

Term		7 credits
10001125	Arboriculture Operations 1	2
10001108	Electric Systems & Safety in Arboriculture ☑	1
10001150	Workplace Communication in Arboriculture	1
10806112	Principles of Sustainability	3

Term		6-7 credits
10806184	Plant Biology	3
10804107	College Mathematics ☑	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications ☑	4

Term		9 credits
10001102	Plant Health Care Applicator ☑	2
10001110	Tree Biology	2
10001111	Intro to Horticulture	2
10809166	Intro to Ethics: Theory & Application ☑	3

Term		7 credits
10001115	Root Management	2
10001126	Arboriculture Operations 2	2
10801198	Speech ☑ <b>-or-</b>	
10801196	Oral/Interpersonal Communication ☑	3

Term		6 credits
10001113	Ornamental Plant Health Care	3
10809188	Developmental Psychology ☑ <b>-or-</b>	
10809198	Intro to Psychology ☑	3

Term		9 credits
10001105	Dendrology and Silvics	3
10001199	Fish, Forest, and Wildlife Management	3
10801136	English Composition 1 ☑	3

Term		8 credits
10001103	Applied Arboriculture & Urban Forestry	2
10001149	Ecology for Arboriculture	3
10001198	Soil & Water Resources	3

**Total credits 60-61**

## MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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



# COURSE DESCRIPTIONS

## **Applied Arboriculture & Urban Forestry**

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

Students gain familiarity with techniques & methods used in the management of trees & tree populations. This course also serves to create an awareness of arboriculture career paths.

*Prerequisites: Pruning for Structure 100001173 and Tree Biology 100001110*

## **Arboriculture Operations 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.

*Prerequisites: Arborist Skills Introduction 10001124 and Pruning for Structure 10001173*

## **Arboriculture Operations 2**

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

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

*Prerequisites: Arboriculture Operations 1 10001125, Chainsaw Safety & Operation 10001133*

## **Arborist Skills Introduction**

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

A hands-on introduction to the basic techniques employed by arborists engaged in performing aerial tree care operations. Topics include canopy access methods, arborist gear usage, safety considerations/risk recognition, and knot selection.

## **Chainsaw Safety and Operation**

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

This course will familiarize students with common chainsaw practices employed within the arboricultural 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**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better*

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Ecology for Arboriculture**

**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*



# COURSE DESCRIPTIONS

## **Electric Systems & Safety in Arboriculture** ☑

**10001108**..... **1 credit**

Students will gain familiarity with electrical distribution and transmission system hardware identification. Industry safety best practices and standards related to performing tree work near energized conductors will be explored.

## **English Composition 1** ☑

**10801136** .....**3 credits**

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

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

## **Fish, Forest, and Wildlife Management**

**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.

## **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 2.6 and MMM\_1 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Pre-Algebra 10834109 with a "C" or better*

## **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 2.6 and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **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 2.6 and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **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 2.6 and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **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.

# COURSE DESCRIPTIONS

## **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.

## **Principles of Sustainability**

**10806112 .....3 credits**

Prepares the student to develop sustainable literacy, analyze the interconnections among the physical and biological sciences and environmental systems, summarize the effects of sustainability on health and well-being, analyze connections among social, economic, and environmental systems, employ energy conservation strategies to reduce the use of fossil fuels, investigate alternative energy options, evaluate options to current waste disposal and recycling in the U.S., and analyze approaches used by your community to promote and implement sustainability.

## **Pruning for Structure ☑**

**10001173 .....2 credits**

Focuses on the art and science of tree pruning. Topics include tree structure, introductory biology, pruning cuts, and young tree training. Students will gain hands-on experience performing tree pruning.

## **Root Management**

**10001115.....2 credits**

This course is an exploration of the landscape below ground, focusing on woody plant roots. Students will uncover different root types, root systems, and how roots uptake water and elements. Hands-on class activities include experimenting with several techniques of root excavation, assessment, and pruning. Critical thinking and relevant skills in properly managing roots in the urban environment will be discussed.

## **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*

## **Speech ☑**

**10801198 .....3 credits**

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

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

## **Tree Biology**

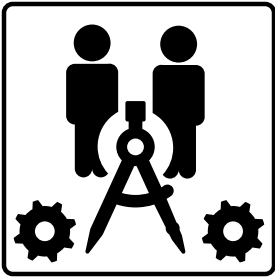
**10001110 .....2 credits**

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.

## **Workplace Communication in Arboriculture**

**10001150.....1 credit**

This course introduces students to the key concepts of effective and impactful communications in the arboriculture industry. Students will investigate the diversity of commonalities and differences among people and how they relate to improving personal and organizational effectiveness at work.



# AUTOMATION & INSTRUMENTATION TECHNOLOGY

**Associate in Applied Science (AAS)**  
**Program Code: 10-605-4**  
**Total Credits: 60**

Unique in the Wisconsin Technical College System, the Automation & Instrumentation Technology 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

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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1001 Centerpoint Drive  
Stevens Point, WI 54481

**WISCONSIN RAPIDS CAMPUS**  
500 32nd Street North  
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COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### AUTOMATION & INSTRUMENTATION TECHNOLOGY

Associate in Applied Science (AAS) • 60 Credits

#### Start Your Career

- Automation/Controls Engineering Technician
- Electrical and Instrumentation Technician
- Instrument Technician
- Apprenticeship

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

UW-Oshkosh.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Civil Engineering Technology-Highway Technician
- Mechanical Design Technology

### APPRENTICESHIP OPPORTUNITIES

- Electrical & Instrumentation Technician Apprenticeship

**PROGRAM OUTCOMES**

Employers will expect you, as an Automation & Instrumentation Technology graduate, to be able to:

- Apply safety standards.
- Utilize troubleshooting strategies.
- Optimize instrumentation systems.
- Optimize hardware and output devices.
- Demonstrate programming in ladder logic.
- Demonstrate networking principles.

**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.

**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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

**ADDITIONAL COURSES AS NEEDED**

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

**College Reading and Writing 1**

**10831104 .....3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

**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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10605105	Electrical Circuits I ☑	3
10605112	Process Documentation ☑	1
10605131	Process Equipment	2
10605169	Instrumentation Principles ☑	3
10801136	English Composition 1 ☑	3
10804118	Intermediate Algebra with Applications ☑	4
Term		15 credits
10462107	Industrial Safety ☑	2
10605110	Electrical Circuits II	3
10605117	Automation 1 - Beginning PLC ☑	3
10605145	Industrial Networking	2
10607106	Excel for Engineering	1
10623106	Intro to AutoCAD	1
10804196	Trigonometry with Applications	3
Term		16 credits
10462133	Electric Controls for Industrial Automation	3
10605100	Process Measurements Instrumentation	2
10605118	Automation 2 - Advanced PLC	3
10605121	Process Control Strategies	2
10804195	College Algebra with Applications ☑	3
10809198	Intro to Psychology ☑ -or-	
10809188	Developmental Psychology ☑	3
Term		13 credits
10462131	Industrial Electric Power Applications	2
10605119	Automation 3 - HMI's & Robotics	2
10605133	Process Troubleshooting Strategies	1
10605172	Process Systems	2
10801196	Oral/Interpersonal Communication ☑ -or-	
10801198	Speech ☑	3
10809166	Intro to Ethics: Theory & Application ☑ -or-	
10809122	Intro to American Government ☑	3
<b>Total credits 60</b>		

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		10 credits
10605105	Electrical Circuits I ☑	3
10605169	Instrumentation Principles ☑	3
10804118	Intermediate Algebra with Applications ☑	4
Term		8 credits
10462107	Industrial Safety ☑	2
10605110	Electrical Circuits II	3
10804196	Trigonometry with Applications	3
Term		6 credits
10605112	Process Documentation ☑	1
10605131	Process Equipment	2
10801136	English Composition 1 ☑	3
Term		7 credits
10605117	Automation 1 - Beginning PLC ☑	3
10605145	Industrial Networking	2
10607106	Excel for Engineering	1
10623106	Intro to AutoCAD	1
Term		8 credits
10605118	Automation 2 - Advanced PLC	3
10605121	Process Control Strategies	2
10804195	College Algebra with Applications ☑	3
Term		7 credits
10462131	Industrial Electric Power Applications	2
10605119	Automation 3 - HMI's & Robotics	2
10801196	Oral/Interpersonal Communication ☑ -or-	
10801198	Speech ☑	3
Term		8 credits
10462133	Electric Controls for Industrial Automation	3
10605100	Process Measurements Instrumentation	2
10809198	Intro to Psychology ☑ -or-	
10809188	Developmental Psychology ☑	3
Term		6 credits
10605133	Process Troubleshooting Strategies	1
10605172	Process Systems	2
10809166	Intro to Ethics: Theory & Application ☑ -or-	
10809122	Intro to American Government ☑	3
<b>Total credits 60</b>		

### MULTIPLE MEASURES

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

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

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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



# COURSE DESCRIPTIONS

## 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 & Robotics

**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: ACT Math score of 22 or Trigonometry with Applications 10804196 or Intermediate Algebra with Applications 10804118 with a "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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## 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*

## Electrical Circuits I

**10605105** .....3 credits

The study of Ohm's Law and its application to D.C. circuits. Major topics include: Ohm's Law, series circuits, parallel circuits, combination circuits, Kirchhoff's Laws, and power relationships.

*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; Corequisite: Trigonometry with Applications 1080419*

## English Composition 1

**10801136** .....3 credits

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

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

## Excel for Engineering

**10607106** .....1 credit

Students learn to create, modify, and format spreadsheets and workbooks for readability and functionality in the engineering industry. Students will practice constructing workbooks to perform calculations and generate results in tabular and graphic form.

## 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.

*Prerequisite: Electric Controls for Industrial Automation 10462133*

## Industrial Networking

**10605145** .....2 credits

Students will study network infrastructure and communication languages commonly found in the industrial setting.



# 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.

## **Instrumentation Principles** ☒

**10605169** .....**3 credits**

This course emphasizes a functional and mathematical approach to pneumatic and electric instrumentation used in industry. Includes survey of pressure, level, flow, and temperature instruments and their mechanisms, and an introduction to process control fundamentals. The course covers fundamental principles in math and science that applies to process instrumentation and process control. Topics covered include unit conversions, spreadsheets and graphing, linear equations, calibration principles, statistical process analysis, simple machines, basic thermodynamics, and electric motor theory.

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to 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 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Oral/Interpersonal Communication** ☒

**10801196** .....**3 credits**

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

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

## **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: Instrumentation Principles 10605169.*

## **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.

# COURSE DESCRIPTIONS

## 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: Instrumentation Principles 10605169.*

## 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 Mid-State 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*

## Speech

**10801198 .....3 credits**

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

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

## 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: ACT Math score of 22 or Intermediate Algebra with Applications 10804118 with a "C" or better*



# 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

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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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### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### AUTOMOTIVE MAINTENANCE TECHNICIAN

Technical Diploma • 27 Credits

#### Start Your Career

- Automotive Apprentice
- Automotive Parts Sales/Service
- Tire and Lube Technician

### AUTOMOTIVE TECHNICIAN

Technical Diploma • 59-60 Credits

#### Start Your Career

- Automotive and Light Truck Technician
- Automotive Master Mechanic
- Engine Technician

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

## OTHER OPTIONS

### RELATED PROGRAMS

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





# COURSE DESCRIPTIONS

## **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.

## **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.

## **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.

*Prerequisite: Intro to Electricity for the Automotive Industry 32404340*

## **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.

## **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.

## **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.

## **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.

## **Welding Foundations 1**

**31442320** ..... **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 Foundations 2**

**31442321** ..... **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: 59-60

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

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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500 32nd Street North  
Wisconsin Rapids, WI 54494

# CAREER PATHWAY • BEGIN AT ANY POINT



## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### AUTOMOTIVE MAINTENANCE TECHNICIAN

Technical Diploma • 27 Credits

#### Start Your Career

- Automotive Apprentice
- Automotive Parts Sales/Service
- Tire and Lube Technician

### AUTOMOTIVE TECHNICIAN

Technical Diploma • 59-60 Credits

#### Start Your Career

- Automotive and Light Truck Technician
- Automotive Master Mechanic
- Engine Technician

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

## 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 the Service Practices and Fuel Control Systems courses.

## 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### **10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		14-15 credits
31804305	Applied Mathematics	2
<b>-or-</b>		
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
31442320	Welding Foundations 1	1
31442321	Welding Foundations 2	1
10457119	Fabrication Fundamentals 1	1
32404311	Electrical Systems-Auto	5
32404324	Engine Repair	5
32404330	Applied Fluid Power ☑	2
Term		15 credits
32404313	Electric Control Systems	2
31801368	Workplace Communication	1
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 59-60</b>		

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

**Please Note:**

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		7 credits
32404307	Suspension & Steering Systems ☑	5
32404340	Intro to Electricity for the Automotive Industry ☑	1
32404375	Service Practices in Automotive Industry ☑	1
Term		7 credits
32404311	Electrical Systems-Auto	5
32404330	Applied Fluid Power ☑	2
Term		7 credits
32404308	Braking Systems-Automotive ☑	5
31442320	Welding Foundations 1	1
31442321	Welding Foundations 2	1
Term		6 credits
10457119	Fabrication Fundamentals 1	1
32404324	Engine Repair	5
Term		9-10 credits
31804305	Applied Mathematics	2
<b>-or-</b>		
10804107	College Mathematics ☑	3
32404323	Automatic Transmissions	5
32806351	Applied Science	2
Term		8 credits
32404312	Advanced Electrical Systems-Auto	5
32404322	Heating/Air Conditioning	3
Term		8 credits
32404313	Electric Control Systems	2
31801368	Workplace Communication	1
32404325	Manual Transmissions	5
Term		7 credits
32404320	Hybrid Systems-Auto	1
32404326	Fuel Control System-Auto	5
32404377	Business Practices in the Transportation Industry	1
<b>Total credits 59-60</b>		

### MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## **Advanced Electrical Systems-Auto**

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

Learners employ theory and operational fundamentals to diagnose and repair 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.

## **Applied Mathematics**

**31804305** .....2 credits

Students taking Applied Mathematics 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.

## **Applied Science**

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

This survey course in basic physics is designed for students in the Automotive Technician, Diesel & Heavy Equipment Technician, and Precision Machining 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.

## **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.

## **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*

## **College Mathematics**

**10804107** .....3 credits

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better*

## **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.

*Prerequisite: Intro to Electricity for the Automotive Industry 32404340*

## **Electric Control Systems**

**32404313** .....2 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: Applied Mathematics 3184305.*

# 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.

*Corequisite: Electrical Systems-Auto 32404311.*

## 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.

## 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.

## 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.

*Prerequisite: Automatic Transmissions 32404323; Corequisites: 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.

## 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.

## 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.

## Welding Foundations 1

**31442320 .....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 Foundations 2

**31442321 .....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.

## Workplace Communication

**31801368 .....1 credit**

Analyze workplace communication situations to develop professional verbal and written communication skills. Learners apply verbal and written communication skills, as well as conflict resolution strategies, to improve workplace communication climates and promote personal and professional growth.





# BARBER TECHNOLOGIST

## Technical Diploma Program Code: 30-502-5 Total Credits: 24

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.

Mid-State's Barber Technologist program prepares students to obtain the required licensure to be employed/practice in the state of Wisconsin. The College does not guarantee its curriculum matches the requirements for preparation, examination, or licensure for other states.

**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: \_\_\_\_\_
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- Other: \_\_\_\_\_  
\_\_\_\_\_



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# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

- Certifications and Licenses
- High School Credit
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- Work and Life Experience

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## TECHNICAL DIPLOMA

### BARBER TECHNOLOGIST

Technical Diploma • 24 Credits

#### Start Your Career

- Barber
- Barber Sales (Retail/Wholesale)
- Barbershop Owner

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

#### OTHER OPTIONS

#### RELATED PROGRAMS

- Cosmetology
- Nail Technician

## 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 to fulfill the TSA requirement.

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Program begins every January and runs through December.

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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

### ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

**10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.



# COURSE DESCRIPTIONS

## Advanced Barber Client Services

**30502345** .....2 credits

Students continue to refine barbering techniques with an emphasis on haircoloring and chemical texturing services. Students will apply knowledge and skills to provide all barber services on customers in the on-campus barbershop.

*Prerequisite:* Admission to Barber Technologist Program 305025

*Corequisites:* Haircoloring for Barbers 30502704 and Chemical Texturing for Barbers 30502705

## Barber Capstone Experience

**30502346** .....2 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 barbering industry.

*Prerequisite:* Admission to Barber Technologist Program 305025;

*Corequisite:* Master Barber Client Services 30502734

## Barbershop Operations

**30502342** .....1 credit

Focuses on developing front desk and client relation skills including managing bookings and applying sanitation standards to dispensary practices. Emphasizes daily operations of a barbershop and the professional attitudes needed to be successful in the industry.

*Prerequisite:* Admission to Barber Technologist Program 305025;

*Corequisite:* Introduction to Barber Technologist 30502707

## Barbershop Service Skills

**30502343** .....1 credit

Taking knowledge learned from the first semester courses, students practice consultations and draping, haircutting, hairstyling, shaving and facial massages in the on-campus barbershop.

*Prerequisites:* Admission to Barber Technologist Program 305025, Haircutting Techniques for Barbers 30502340, Facial Hair and Skin Care Techniques for Barbers 30502341, Hairstyling for Barbers 30502706

## Basic Barber Client Services

**30502344** .....2 credits

Students continue to enhance their barbering techniques by working on actual clients in the on-campus barbershop setting. Emphasis is placed on interacting with clients and performing services at a faster rate with more precision.

*Prerequisites:* Admission to Barber Technologist Program 305025, Haircutting Techniques for Barbers 30502340, Facial Hair and Skin Care Techniques for Barbers 30502341, Hairstyling for Barbers 30502706

## 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 and Skin Care Techniques for Barbers

**30502341** .....4 credits

Shaving and facial massages are two services central to the barbering profession. Students will learn about the techniques, tools, equipment, and products used in performing facial massages and facial hair services.

*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 Techniques for Barbers

**30502340** .....3 credits

Introduces haircutting theory and terminology and provides students with practice using the basic tools of the barbering profession. Students will learn how to perform a cut from consultation to finishing techniques.

*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 roller treatments, blow drying, fingerwaves, pincurls, roller setting, thermal styling, and hair replacement techniques.

*Prerequisite:* Admission to Barber Technologist Program 305025

## Introduction to Barber Technologist

**30502707** .....1 credit

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

## Master Barber Client Services

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

Students provide all barber services on customers in the client lab and prepare for the Wisconsin State Barber licensing exam. Emphasis is on providing services with speed and accuracy, including hair and scalp analysis, shampooing, haircutting, shaving, facial services, and chemical services.

*Prerequisite:* Admission to Barber Technologist program 305025;

*Corequisites:* Haircoloring for Barbers 30502704, Chemical Texturing for Barbers 30502705



# BUSINESS MANAGEMENT

## Associate in Applied Science (AAS) Program Code: 10-102-3 Total Credits: 64-65

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.

**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**  
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 • BEGIN AT ANY POINT



## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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



### BUSINESS SKILLS

Certificate • 9 Credits

### FUNDAMENTALS OF BUSINESS ADMINISTRATION

Certificate • 9 Credits

### HUMAN RESOURCES FOUNDATIONS

Certificate • 9 Credits

### SMALL BUSINESS ENTREPRENEURSHIP

Certificate • 9 Credits

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



### CUSTOMER RELATIONSHIP PROFESSIONAL

Technical Diploma • 12 Credits

#### Start Your Career

- Call Center Agent
- Customer Care Representative
- Customer Service Representative

### ENTREPRENEUR

Technical Diploma • 16 Credits

#### Start Your Career

- Business Owner
- Entrepreneur
- Founder/CEO



### HUMAN RESOURCES ASSISTANT

Technical Diploma • 32 Credits

#### Start Your Career

- HR Generalist
- HR Recruitment Coordinator
- Job Analyst

### OFFICE SUPPORT SPECIALIST

Technical Diploma • 32 Credits

#### Start Your Career

- Administrative Assistant
- Office Assistant
- Receptionist



### BUSINESS MANAGEMENT

Associate in Applied Science (AAS) • 64-65 Credits

#### Start Your Career

- Account Executive
- Department Supervisor
- Office Manager

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Viterbo University, Western Governor's University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Human Resources
- Project Management
- Leadership Development

## 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.

## 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### **10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10102101	Intro to Business ☑	3
10102231	Business Networking	1
10106106	Quality Customer Service	3
10196190	Leadership Development ☑ -or-	
10102138	Organizational Behavior ☑	3
10801195	Written Communication ☑ -or-	
10801136	English Composition 1 ☑	3
10801198	Speech ☑ -or-	
10801196	Oral/Interpersonal Communication ☑	3
Term		16 credits
10101140	Accounting 1 ☑ -or-	
10102121	Finance and Budgeting ☑	3
10102230	Business Communities	1
10103106	Microsoft Office-Introduction ☑	3
10104102	Marketing Principles ☑	3
10106190	Professional Business Skills	3
10196189	Team Building & Problem Solving	3
Term		16-17 credits
10102110	Employment Law	3
10102233	Negotiation Skills	1
10196191	Supervision ☑	3
10196193	Human Resource Management	3
10804107	College Mathematics ☑	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications ☑	4
	<b>-or-</b>	
10804189	Introductory Statistics ☑	3
10809196	Intro to Sociology ☑ -or-	
10809122	Intro to American Government ☑ -or-	
10809172	Introduction to Diversity Studies ☑	3
Term		16 credits
10102104	Business Law ☑	3
10102160	Business Decision Making	3
10102232	Entrepreneurial Foundations	1
10196192	Managing for Quality	3
10809188	Developmental Psychology ☑ -or-	
10809198	Intro to Psychology ☑	3
10809195	Economics ☑	3
<b>Total credits 64-65</b>		

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		7 credits
10102101	Intro to Business ☑	3
10102231	Business Networking	1
10801198	Speech ☑ -or-	
10801196	Oral/Interpersonal Communication ☑	3
Term		9 credits
10106106	Quality Customer Service	3
10196190	Leadership Development ☑ -or-	
10102138	Organizational Behavior ☑	3
10801195	Written Communication ☑ -or-	
10801136	English Composition 1 ☑	3
Term		7 credits
10101140	Accounting 1 ☑ -or-	
10102121	Finance and Budgeting ☑	3
10102230	Business Communities	1
10196189	Team Building & Problem Solving	3
Term		9 credits
10103106	Microsoft Office-Introduction ☑	3
10104102	Marketing Principles ☑	3
10106190	Professional Business Skills	3
Term		7 credits
10102110	Employment Law	3
10102233	Negotiation Skills	1
10809196	Intro to Sociology ☑ -or-	
10809122	Intro to American Government ☑ -or-	
10809172	Introduction to Diversity Studies ☑	3
Term		9-10 credits
10196191	Supervision ☑	3
10196193	Human Resource Management	3
10804107	College Mathematics ☑	3
	<b>-or-</b>	
10804118	Intermediate Algebra with Applications ☑	4
	<b>-or-</b>	
10804189	Introductory Statistics ☑	3
Term		9 credits
10102104	Business Law ☑	3
10196192	Managing for Quality	3
10809188	Developmental Psychology ☑ -or-	
10809198	Intro to Psychology ☑	3
Term		7 credits
10102160	Business Decision Making	3
10102232	Entrepreneurial Foundations	1
10809195	Economics ☑	3
<b>Total credits 64-65</b>		

## MULTIPLE MEASURES

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

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

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Accounting 1

**10101140.....3 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 Communities

**10102230 ..... 1 credit**

This course provides students with a comprehensive understanding of how different business communities operate, how they contribute to economic ecosystems, and how learners can participate effectively. This course will explore the dynamics, structures, and strategies involved in various professional associations, including local, global, industry-specific, and online communities.

## 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: Nine core credits from a 102, 103, 109, 196, or 623 program code*

## 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.

## Business Networking

**10102231..... 1 credit**

This course will equip students with the knowledge, strategies, and practical techniques to build, nurture, and leverage professional relationships for personal and organizational success. Through a combination of classroom instruction, interactive exercises, and simulated practice, this course will empower students to enhance their networking abilities, expand their professional circles, and create valuable connections.

## College Mathematics

**10804107 .....3 credits**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## 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.

# COURSE DESCRIPTIONS

## English Composition 1 ☑

**10801136 .....3 credits**

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

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

## Entrepreneurial Foundations

**10102232 .....1 credit**

Learners study entrepreneurial practices by exploring components of a startup business plan. 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.

## 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.

*Prerequisite: Nine core credits from a 101, 102, 103, 109, 196, or 623 program code.*

## 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 2.6 and MMM\_1 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Pre-Algebra 10834109 with a "C" or better*

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to 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, social organization, and workplace issues.

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

## Introduction to Diversity Studies ☑

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

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

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

# COURSE DESCRIPTIONS

## **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 2.6 and MMM\_2 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better*

## **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.

## **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. This course prepares students for the Associate level MOS Certification exams for Word, Excel, PowerPoint, and Outlook. Students should possess basic keyboarding, mouse, and Windows 11 skills. Students may develop these skills in the Academic Learning Center while concurrently enrolled in this course.

## **Negotiation Skills**

**10102233** .....**1 credit**

This course explores the principles, strategies, and practical applications of negotiation in a variety of contexts, from business transactions to interpersonal relationships. Learners will gain the confidence and expertise required to navigate complex negotiations successfully.

## **Oral/Interpersonal Communication** ☑

**10801196** .....**3 credits**

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

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

## **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.

## **Professional Business Skills**

**10106190** .....**3 credits**

This course introduces critical technology and organizational skills for the modern workplace. Participants will learn calendar management and meeting scheduling, virtual and in-person meeting hosting, document formatting and filing, and presentation layout and design using industry-standard cloud-based applications. This course emphasizes practical applications to ensure participants can immediately apply their acquired skills in real-world scenarios.

## **Quality Customer Service**

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

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

## **Speech** ☑

**10801198** .....**3 credits**

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

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

# COURSE DESCRIPTIONS

## **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.

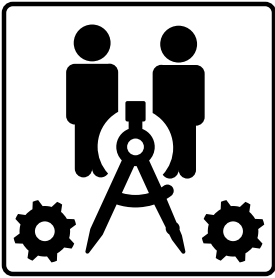
## **Written Communication**

### **10801195 .....3 credits**

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

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





# CIVIL ENGINEERING TECHNOLOGY-HIGHWAY TECHNICIAN

**Associate in Applied Science (AAS)**  
**Program Code: 10-607-4**  
**Total Credits: 67-68**

Mid-State's Civil Engineering Technology-Highway Technician program prepares students to work in the design and 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.

Mid-State's Civil Engineering Technology-Highway Technician program courses provide the required educational hours to obtain the Professional Land Surveyor license; however, students need to complete four years of on-the-job experience in order to be eligible for licensure in the state of Wisconsin. The College does not guarantee its curriculum matches the requirements for preparation, examinations, or licensure for other states.

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

# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## CERTIFICATE

### CIVIL DRAFTING

Certificate • 7 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### CIVIL ENGINEERING TECHNOLOGY-HIGHWAY TECHNICIAN

Associate in Applied Science (AAS) • 67-68 Credits

#### Start Your Career

- AutoCAD Specialist
- Civil Engineering Technician
- Inspection/Quality Control Technician

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Platteville, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Automation & Instrumentation Technology
- Mechanical Design Technology





## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10607106	Excel for Engineering	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

Term		16 credits
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

Term		18-19 credits
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
<b>-or-</b>		
10806154	General Physics 1	4
10809166	Intro to Ethics: Theory & Application ☑ <b>-or-</b>	
10809195	Economics ☑	3

Term		17 credits
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
10809198	Intro to Psychology ☑ <b>-or-</b>	
10809188	Developmental Psychology ☑	3

**Total credits 67-68**

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		9 credits
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

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

Term		7 credits
10607106	Excel for Engineering	1
10607145	Soils	3
10801136	English Composition 1 ☑	3

Term		7-8 credits
10487101	Drones and Remote Sensing	1
10806143	College Physics 1	3
<b>-or-</b>		
10806154	General Physics 1 ☑	4
10809166	Intro to Ethics: Theory & Application ☑ <b>-or-</b>	
10809195	Economics ☑	3

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

Term		10 credits
10607110	Cemented Aggregate Mixtures	4
10607166	Construction Estimating & Management	3
10804195	College Algebra with Applications ☑	3

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

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

**Total credits 67-68**

### MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## 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. HTCP 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: ACT Math score of 22 or Trigonometry with Applications 10804196 or Intermediate Algebra with Applications 10804118 with a "C" or better*

## 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*

## 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 for Engineering 10607106, 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

# COURSE DESCRIPTIONS

## English Composition 1 ☑

**10801136 .....3 credits**

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

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

## Excel for Engineering

**10607106 .....1 credit**

Students learn to create, modify, and format spreadsheets and workbooks for readability and functionality in the engineering industry. Students will practice constructing workbooks to perform calculations and generate results in tabular and graphic form.

## General Physics 1 ☑

**10806157 .....4 credits**

Presents the applications and theory of basic physics principles. This course emphasizes problem solving, laboratory investigation, and applications. Topics include unit conversion and analysis, vectors, translational and rotational kinematics, translational and rotational dynamics, heat and temperature, and harmonic motion and waves.

*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 spatial 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 2.6 and MMM\_1 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Pre-Algebra 10834109 with a "C" or better*

## 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.

# COURSE DESCRIPTIONS

## **Intro to Ethics: Theory & Application** ☒

**10809166** .....3 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 2.6 and MMM\_1 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Pre-Algebra 10834109 with a "C" or better*

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **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. Includes informative, persuasive, and occasion speech presentations.

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

## **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*

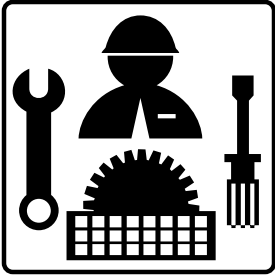
## **Trigonometry with Applications**

**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: ACT Math score of 22 or Intermediate Algebra with Applications 10804118 with a "C" or better*





# CONSTRUCTION TRADES

## Technical Diploma Program Code: 30-475-1 Total Credits: 10

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: \_\_\_\_\_  
\_\_\_\_\_



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Wisconsin Rapids, WI 54494

# CAREER PATHWAY • BEGIN AT ANY POINT

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### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### CONSTRUCTION TRADES

Technical Diploma • 10 Credits

#### Start Your Career

- Electrical Contracting Laborer
- Carpentry Contracting Laborer
- Plumbing Contracting Laborer
- Apprenticeship

### HEATING, VENTILATION, & AIR CONDITIONING (HVAC) INSTALLER

Technical Diploma • 24 Credits

#### Start Your Career

- Building Controls Technician
- Heating, Ventilation, and Air Conditioning Installer
- Heating and Air Conditioning Mechanic
- Apprenticeship

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### RENEWABLE ENERGY TECHNICIAN

Associate in Applied Science (AAS) • 60 Credits

#### Start Your Career

- Energy Load Estimator
- Renewable Energy Technical Sales Representative
- Solar Installer
- Apprenticeship

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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



## PROGRAM OUTCOMES

Employers will expect you, as a Construction Trades graduate, to be able to:

- Demonstrate construction safety.
- Use construction tools and equipment.
- Interpret construction documents and blueprints.
- Construct a building structure using wood framing techniques.
- Recognize plumbing, HVAC, and electrical systems.
- Comply with all applicable standards, policies, and procedures, including safety procedures and the maintenance of a clean work area.

## 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 the Construction Fundamentals 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### 10831104 ..... 3 credits

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		10 credit
10476171	Safety for Construction Trades ☑	1
10482107	Construction Fundamentals	2
10483123	Piping Installation	2
10601130	Blueprint Reading for Construction Trades	2
10601140	Electricity for the Construction Trades	2
31442320	Welding Foundations 1	1
<b>Total credits 10</b>		

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		4 credits
10476171	Safety for Construction Trades ☑	1
10482107	Construction Fundamentals	2
31442320	Welding Foundations 1	1
<b>6 credits</b>		
10483123	Piping Installation	2
10601130	Blueprint Reading for Construction Trades	2
10601140	Electricity for the Construction Trades	2
<b>Total credits 10</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).

## **Piping Installation**

**10483123 .....2 credits**

This course introduces students to the fundamentals of measuring, fitting, joining, and installing piping common to the plumbing and HVAC industries.

## **Safety for Construction Trades** ☑

**10476171 .....1 credit**

The Safety for Construction Trades course teaches construction related workers about their rights, employer responsibilities and how to identify, abate, avoid and prevent job related hazards. Students will familiarize themselves with the proper selection and use of personal protective equipment and safety requirements on a construction site for various activities. Course outcomes align with the training outcomes recommended by OSHA. Upon successful completion, students will receive an OSHA 10 Card.

## **Welding Foundations 1**

**31442320 .....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.



# 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.

Mid-State's Cosmetology program prepares students to obtain the required licensure to be employed/practice in the state of Wisconsin. The College does not guarantee its curriculum matches the requirements for preparation, examination, or licensure for other states.

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

# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### COSMETOLOGY

Technical Diploma • 33 Credits

#### Start Your Career

- Cosmetologist
- Makeup Artist
- Manicurist/Pedicurist

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

### OTHER OPTIONS

#### RELATED PROGRAMS

- Barber Technologist
- Nail Technician

## 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.

## 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### **10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## 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**

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

Please Note:

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

## 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 or Nail Technician program 305024*

## Salon Client Relations

**31502343 ..... 4 credits**

Students refine their professional communication and consultation skills with clients as they continue to increase their salon quotas. Students gain confidence and speed in their advancing skills and also earn 25 hours of off-campus training.

*Corequisite: Salon Operations 31502338*

## Salon Communication & Management

**31502349 .....3 credits**

While continuing to practice salon service skills, students focus on communicating with other stylists and with challenging clients in stressful situations. Students also look at the business side of the industry as they analyze business plans, handbooks, and vision and mission statements.

## Salon Ecology & Industry Trends

**31502344 ..... 4 credits**

The field of cosmetology is built on hairstyle trends. This course examines those trends as students practice the techniques necessary to create contemporary and creative styles. This course also looks at ecological salon practices and protections for clients and workers and includes 25 hours of off-campus training.

*Corequisite: Salon Operations 31502338*

## Salon Operations

**31502338 ..... 1 credit**

Focuses on developing front desk and client relation skills including managing bookings and applying sanitation standards to dispensary practices. Emphasizes daily operations of a salon and the professional attitudes needed to be successful in the industry.

*Corequisites: Haircolor 31502347, Hairstyling 31502334, Haircutting 31502335, Chemical Texture Services 31502336, Nail Technology 31502337, and Facials 31502340*

## Salon Sales & Marketing

**31502350 .....3 credits**

Using technology, students learn to analyze their productivity reports and manage point of sale operations for each of their clients. Included in this course is a focus on how to market products and services to clients through the creation of salon marketing materials.

## 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- CORRECTIONS & COMMUNITY ADVOCACY

## Associate in Applied Science (AAS) Program Code: 10-504-7 Total Credits: 61

Unique in the Wisconsin Technical College System, the Criminal Justice-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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- Transfer Credit
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## ASSOCIATE IN APPLIED SCIENCE (AAS)

### CRIMINAL JUSTICE-CORRECTIONS & COMMUNITY ADVOCACY

Associate in Applied Science (AAS) • 61 Credits

#### Start Your Career

- Correctional/Juvenile Detention Officer
- 9-1-1 Telecommunicator
- Probation & Parole Agent

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, Southern Illinois University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Platteville, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Viterbo, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

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

## PROGRAM OUTCOMES

Employers will expect you, as a Criminal Justice-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

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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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

**10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
10504104	Intro to the Criminal Justice System	3
10504107	Wellness for Rehabilitative Professionals	3
10504109	Basic Professional Communications	3
10801136	English Composition 1	3
10801198	Speech  -or-	
10801196	Oral/Interpersonal Communication	3
Term		15 credits
10504105	Mental Health	3
10504106	Contemporary Social Issues	3
10504116	Probation & Parole	3
10504179	Management of Adult Population	3
10804107	College Mathematics  -or-	
10804189	Introductory Statistics  -or-	
10806189	Basic Anatomy	3
Term		16 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
10809166	Intro to Ethics: Theory & Application	3
10809198	Intro to Psychology  -or-	
10809188	Developmental Psychology	3
Term		15 credits
10504132	Advanced Relational Skills -or-	
10504131	Rehabilitative Professionals Internship	3
10504156	Child Advocacy	3
10504159	Interpersonal Violence/Victimology	3
10504175	Substance Abuse Disorders	3
10809172	Introduction to Diversity Studies  -or-	
10809196	Intro to Sociology	3
<b>Total credits 61</b>		

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10504104	Intro to the Criminal Justice System	3
10504107	Wellness for Rehabilitative Professionals	3
Term		9 credits
10504105	Mental Health	3
10504106	Contemporary Social Issues	3
10801136	English Composition 1	3
Term		6 credits
10504109	Basic Professional Communications	3
10801198	Speech  -or-	
10801196	Oral/Interpersonal Communication	3
Term		9 credits
10504116	Probation & Parole	3
10504179	Management of Adult Population	3
10809166	Intro to Ethics: Theory & Application	3
Term		8 credits
10504128	Telecommunications	2
10804107	College Mathematics  -or-	
10804189	Introductory Statistics  -or-	
10806189	Basic Anatomy	3
10809172	Introduction to Diversity Studies  -or-	
10809196	Intro to Sociology	3
Term		6 credits
10504156	Child Advocacy	3
10504159	Interpersonal Violence/Victimology	3
Term		8 credits
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		9 credits
10504132	Advanced Relational Skills -or-	
10504131	Rehabilitative Professionals Internship	3
10504175	Substance Abuse Disorders	3
10809198	Intro to Psychology  -or-	
10809188	Developmental Psychology	3
<b>Total credits 61</b>		

## MULTIPLE MEASURES

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

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

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Advanced 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 Criminal Justice-Corrections & Community Advocacy program 105047*

## 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.  
*Prerequisite: High School GPA of 2.6 and MMS\_1 or Accuplacer Reading Skills of 249 or ACT Reading score of 15*

## 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 Criminal Justice-Corrections & 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 Criminal Justice-Corrections & Community Advocacy 105047 program, passing of a background check and medical screening; Corequisite: Basic Jail Academy 1 10504184*

## Basic Professional Communications

**10504109 .....3 credits**

Learners in this course will explore ways to effectively utilize oral and written communications in professional rehabilitation forums. Learners will acquire the skills to communicate professionally, while learning mediation, motivational interviewing and basic professional communication techniques.

## 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.

# COURSE DESCRIPTIONS

## College Mathematics ☑

**10804107 .....3 credits**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better*

## Contemporary Social Issues

**10504106 .....3 credits**

Learners in this course will examine contemporary social issues that affect the rehabilitative professions. Learners will gain an understanding of how major systems of power such as racism, sexism, classism, and heterosexism are integrated and result in numerous social conflicts.

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## English Composition 1 ☑

**10801136 .....3 credits**

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

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

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to 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, social organization, and workplace issues.

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

## Intro to the Criminal Justice System

**10504104 .....3 credits**

This course is an introduction into the criminal justice system and it examines its components: law enforcement, court processes and corrections. Students will explore the qualifications and the selection process for the profession and will identify the duties and responsibilities of those who work within the criminal justice system.



# COURSE DESCRIPTIONS

## Introduction to Diversity Studies ☑

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

This course introduces the study of diversity from a local to a global perspective using a holistic, interdisciplinary approach that encourages exploration and prepares students to work in a diverse environment. The course introduces basic diversity concepts, examines the impact of bias and power differentials among groups, explores the use of culturally responsive communication strategies, and compares forces that shape diversity in an international context.

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

## Introductory Statistics ☑

**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 2.6 and MMM\_2 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better*

## 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 Criminal Justice-Corrections & Community Advocacy program 105047*

## Mental Health

**10504105 .....3 credits**

Learners in this course will receive an overview of crisis intervention. The conceptual framework for crisis intervention practice, including crisis theory, crisis concepts, and crisis intervention models and strategies will be explored.

## Oral/Interpersonal Communication ☑

**10801196 .....3 credits**

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

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

## 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.

## Rehabilitative Professionals Internship

**10504131 .....3 credits**

Learners in the internship will be provided an excellent opportunity to experience the wide variety of duties and responsibilities of rehabilitative professionals in the field. Students interested in an internship with an agency will participate in an application and interview process to facilitate the selection and placement process. Selected applicants will complete 144 hours in their internship. There is an additional 18 hours of in-class lecture. Acceptance to an agency may be impacted based on findings of a background check and specific agency criteria.

*Prerequisite: Admission to Criminal Justice-Corrections & Community Advocacy program 105047*

## 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 Criminal Justice-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.

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

## Substance Abuse Disorders

**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.

# COURSE DESCRIPTIONS

## **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*

## **Wellness for Rehabilitative Professionals**

### **10504107 .....3 credits**

Learners in this course will explore and understand the importance of self-care in the rehabilitative professions. The points of focus will include stress management, dimensions of wellness, compassion fatigue, resilience, secondary trauma, and burn-out risks.



# 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 40 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.

Mid-State's Criminal Justice-Law Enforcement 720 Academy prepares students to obtain state certification to be employed/practice in the state of Wisconsin. The College does not guarantee its curriculum matches the requirements for preparation, examinations, or licensure for other states.

**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
- Proof of US Citizenship
- Other: \_\_\_\_\_  
\_\_\_\_\_



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Wisconsin Rapids, WI 54494

# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### CRIMINAL JUSTICE-LAW ENFORCEMENT 720 ACADEMY

Technical Diploma • 22 Credits

#### Start Your Career

- Police Officer
- Conservation Officer
- Deputy Sheriff

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Herzing University and UW-Stevens Point.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Advanced Emergency Medical Technician
- Criminal Justice-Corrections & Community Advocacy
- Criminal Justice-Studies
- Emergency Medical Technician
- Emergency Services Management
- EMT-Paramedic
- Fire Service Certification
- 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.

---

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 40 accredited semester 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term	22 credits
30504500 Overview of Patrol Response	2
30504501 Physical Fitness	1
30504502 Application of Investigations	1
30504503 Overview of Criminal Justice	1
30504504 Principles of Emergency Vehicle Response	2
30504505 Sensitive Crimes	2
30504506 Overview of Investigations	2
30504507 Application of Traffic Response	3
30504508 Principles of Investigations	1
30504509 Principles of Tactics	5
30504510 Overview of Tactics	1
30504511 Scenario Assessment	1
<b>Total credits 22</b>	

## COURSE DESCRIPTIONS

### Application of Investigations

#### **30504502..... 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 305042 and must successfully complete the application process.*

### Application of Traffic Response

#### **30504507.....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 305042 and must successfully complete the application process*

### Overview of Criminal Justice

#### **30504503..... 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

#### **30504506.....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 305042 and must successfully complete the application process*

### Overview of Patrol Response

#### **30504500 .....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

#### **30504510 ..... 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 305042 and must successfully complete the application process*



# COURSE DESCRIPTIONS

## Physical Fitness

**30504501 ..... 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 305042 and must successfully complete the application process*

## Principles of Emergency Vehicle Response

**30504504 ..... 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 305042 and must successfully complete the application process*

## Principles of Investigations

**30504508 ..... 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 305042 and must successfully complete the application process*

## Principles of Tactics

**30504509 ..... 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 305042 and must successfully complete the application process*

## Scenario Assessment

**30504511 ..... 1 credit**

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 testing component is graded and students must earn a passing grade to successfully complete preparatory law enforcement training.

*Prerequisite: Admission to Criminal Justice-Law Enforcement Academy program 305042 and must successfully complete the application process*

## Sensitive Crimes

**30504505 ..... 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, 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 305042 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 offers students multiple career paths in the criminal justice field. Students can choose to enter law enforcement or corrections right after graduation or transfer to a university for a bachelor's degree. The program aims to facilitate employment, keep students updated on industry advancements, and promote further education. Mid-State's experienced instructors prioritize professionalism, integrity, and high ethical standards. The program includes the opportunity to enroll in the separate Wisconsin Department of Justice's 720-hour law enforcement academy or the 200-hour jail academy, allowing students to become certified law enforcement or correctional officers in four semesters. Graduates can also apply their skills in civilian criminal justice roles, such as record maintenance or communications center operations.

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

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

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### CRIMINAL JUSTICE-STUDIES

Associate in Applied Science (AAS) • 60 Credits

#### Start Your Career

- Police Officer
- State Trooper
- Deputy Sheriff

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, Southern Illinois University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Parkside, UW-Platteville, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Viterbo, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Advanced Emergency Medical Technician
- Criminal Justice-Corrections & Community Advocacy
- Criminal Justice-Law Enforcement 720 Academy
- Emergency Medical Technician
- Emergency Services Management
- EMT-Paramedic
- Fire Service Certification
- 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 Public Safety courses.

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Upon earning 40 college credits,, 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### **10831104 .....3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
10504114	Introduction to Law Enforcement ☑	3
10504125	Patrol Procedures	3
10504164	Criminal Law for LE	3
10801136	English Composition 1 ☑	3
10804107	College Mathematics ☑ -or-	
10804189	Introductory Statistics ☑	3
Term		15 credits
10504140	Report Writing for Protective Services	3
10504144	Wellness in Public Safety	3
10504163	Constitutional Law for LE	3
10801196	Oral/Interpersonal Communication ☑ -or-	
10801198	Speech ☑	3
10809188	Developmental Psychology ☑ -or-	
10809198	Intro to Psychology ☑	3
Term		15 credits
10504103	Fitness for Law Enforcement ☑	1
10504112	Court Procedures	3
10504123	Criminal Investigation	3
10504195	Criminal Justice Internship ☑ -or-	
10504196	Criminal Justice Applications ☑	2
10809122	Intro to American Government ☑ -or-	
10809196	Intro to Sociology ☑	3
10809172	Introduction to Diversity Studies ☑	3
Term		15 credits
10504115	Contemporary Issues in Law Enforcement -or-	
10504185	Basic Jail Academy 2 ☑	3
10504129	Community Policing	3
10504134	Intro to LE Organizations and Leadership	3
10504143	Criminology	3
10504166	Criminal Justice Ethics -or-	
10504184	Basic Jail Academy 1 ☑	3
<b>Total credits 60</b>		

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		9 credits
10504114	Introduction to Law Enforcement ☑	3
10504164	Criminal Law for LE	3
10801136	English Composition 1 ☑	3
Term		9 credits
10504140	Report Writing for Protective Services	3
10801196	Oral/Interpersonal Communication ☑ -or-	
10801198	Speech ☑	3
10809188	Developmental Psychology ☑ -or-	
10809198	Intro to Psychology ☑	3
Term		6 credits
10504125	Patrol Procedures	3
10804107	College Mathematics ☑ -or-	
10804189	Introductory Statistics ☑	3
Term		9 credits
10504144	Wellness in Public Safety	3
10504163	Constitutional Law for LE	3
10809172	Introduction to Diversity Studies ☑	3
Term		6 credits
10504103	Fitness for Law Enforcement ☑	1
10504112	Court Procedures	3
10504195	Criminal Justice Internship ☑ -or-	
10504196	Criminal Justice Applications ☑	2
Term		6 credits
10504115	Contemporary Issues in Law Enforcement -or-	
10504185	Basic Jail Academy 2 ☑	3
10504166	Criminal Justice Ethics -or-	
10504184	Basic Jail Academy 1 ☑	3
Term		6 credits
10504123	Criminal Investigation	3
10809122	Intro to American Government ☑ -or-	
10809196	Intro to Sociology ☑	3
Term		9 credits
10504129	Community Policing	3
10504134	Intro to LE Organizations and Leadership	3
10504143	Criminology	3
<b>Total credits 60</b>		

### MULTIPLE MEASURES

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

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

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## 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*

## College Mathematics ☑

**10804107 .....3 credits**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better*

## 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 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.

*Prerequisites: Admission to Criminal Justice-Studies program 105045 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 10 hours of service with those organizations.

*Prerequisites: Admission to Criminal Justice-Studies program 105045 and Introduction to Law Enforcement 10504114*

## Court Procedures

**10504112 .....3 credits**

Learners examine the court system to include the formation and design of the courts, the key roles of the courts, and the application of law in the courts. The differences between the federal and state systems are explored. The roles and authority of law enforcement, prosecutors, defense attorneys, and judges are investigated. A main focus is dissecting each stage of a criminal case from the initial arrest through the final appeal.

*Prerequisites: Admission to Criminal Justice-Studies program 105045 and Criminal Law for LE 10504164.*

## 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, Introduction to Law Enforcement 10504114, Court Procedures 10504112, Criminal Law for LE 10504164, Patrol Procedures 10504125 and Contemporary Issues for LE 10504115*



# COURSE DESCRIPTIONS

## **Criminal Justice Applications** ☑

**10504196** .....**2 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: Community Policing 10504129, Report Writing 10504140, Constitutional Law for LE 10504163, Criminal Justice Ethics 10504166, and Criminology 10504143*

## **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 to determine placement eligibility. NOTE: Host agencies criteria for acceptance as an intern may impact a student's ability to participate in this course.

*Prerequisites: Community Policing 10504129, Report Writing 10504140, Constitutional Law for LE 10504163, Criminal Justice Ethics 10504166, and Criminology 10504143*

## **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.

*Prerequisite: Admission to Criminal Justice-Studies program 105045*

## **Criminology**

**10504143** .....**3 credits**

Learners will explore crime causation to include sources of data used to analyze crime, demographics of victims and offenders, and the main theories on crime causation. The main crime causation theories will be explored and used to analyze crime on a societal and individual level.

*Prerequisite: Admission to Criminal Justice-Studies program 105045*

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **English Composition 1** ☑

**10801136** .....**3 credits**

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

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

## **Fitness for Law Enforcement** ☑

**10504103** .....**1 credit**

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, Introduction to Law Enforcement 10504114.*

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to LE 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.

# COURSE DESCRIPTIONS

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to 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, social organization, and workplace issues.

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

## **Introduction to Diversity Studies** ☑

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

This course introduces the study of diversity from a local to a global perspective using a holistic, interdisciplinary approach that encourages exploration and prepares students to work in a diverse environment. The course introduces basic diversity concepts, examines the impact of bias and power differentials among groups, explores the use of culturally responsive communication strategies, and compares forces that shape diversity in an international context.

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

## **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*

## **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 2.6 and MMM\_2 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better*

## **Oral/Interpersonal Communication** ☑

**10801196** .....3 credits

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

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

## **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 Introduction 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.

*Prerequisites: Admission to Criminal Justice-Studies program 105045 and English Composition 1 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. Includes informative, persuasive, and occasion speech presentations.

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

## **Wellness in Public Safety**

**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*



# CULINARY ARTS

## Associate in Applied Science (AAS) Program Code: 10-316-1 Total Credits: 60-61

Mid-State's Culinary Arts program prepares students to provide professional chef and related cooking services in restaurants and other commercial food establishments. Instruction includes recipe and menu planning, preparing and cooking of foods, supervising and training kitchen assistants, the management of food supplies and kitchen resources, aesthetics of food presentation, and familiarity with or mastery of a wide variety of cuisines and culinary techniques. Graduates of this program are prepared for entry-level roles in the food service and restaurant industry. You will develop both the technical and interpersonal skills needed for success and learn proper food safety practices. Hands-on activities include opportunities to apply culinary skills and plan menus, plan events, produce sales and marketing projects, draft budgets, 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.

- 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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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 • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## CERTIFICATE

### COMMUNICATION ESSENTIALS

Certificate • 9 Credits

### MEAT CUTTING AND BUTCHERY

Certificate • 9 Credits

### CULINARY FOUNDATIONS

Certificate • 8 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## TECHNICAL DIPLOMA

### FOOD SERVICE ASSISTANT

Technical Diploma • 18 Credits

#### Start Your Career

- Cook
- Food Service Worker
- Food Service Specialist

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### CULINARY ARTS

Associate in Applied Science (AAS) • 60-61 Credits

#### Start Your Career

- Head Cook
- Line Cook
- Sous Chef

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

UW-Oshkosh.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Hospitality Assistant
- Hospitality Management

## PROGRAM OUTCOMES

Employers will expect you, as a Culinary Arts graduate, to be able to:

- Apply principles of safety and sanitation in food service operations.
- Apply principles of nutrition.
- Demonstrate culinary skills.
- Manage food service operations.
- Plan menus.
- Analyze food service financial information.
- Relate food service operations to sustainability.

## 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.

## TECHNICAL STANDARDS

Students enrolled in the Culinary Arts program must be able to meet the established technical standards identified below, which are reflective of those found in the profession.

- Ability to move or transport objects up to 50 pounds, potentially with occasional, frequent, or constant exertion.
- Ability to detect and respond to emergencies.
- Sufficient endurance, strength, mobility, balance, flexibility, and coordination to perform activities and emergency procedures.
- Sufficient sensory (auditory, visual, taste, smell, tactile) ability in order to detect temperature and/or environmental temperature, detect freshness or state of product, etc.

## PROGRAM PROGRESSION

In order to progress in and successfully complete the program, students must repeat core courses (courses numbered 10-316-xxx and 10-109-xxx) not completed with a grade of “C” or better prior to progressing in core courses or other courses with co- or pre-requisites.

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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

**10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		14 credits
10316112	Sanitation for Foodservice Operations ☑	1
10316121	Food Science	2
10316125	Introduction to Food Production	3
10316126	Culinary Applications	2
10801195	Written Communication ☑ -or-	
10801136	English Composition 1 ☑	3
10809103	Think Critically & Creatively ☑	3

Term		16-17 credits
10316128	Introduction to Foodservice	3
10316129	Culinary Internship	2
10316130	Introduction to Baking	2
10316138	Garde Manger	3
10801196	Oral/Interpersonal Communication ☑ -or-	
10801198	Speech ☑	3
10804107	College Mathematics ☑	3
	-or-	
10804189	Introductory Statistics ☑	3
	-or-	
10804118	Intermediate Algebra with Applications ☑	4

Term		16 credits
10109134	Cost Control-Revenue Management	3
10316120	Advanced Professional Cooking	3
10316127	Menu Planning	3
10316131	Nutrition ☑	2
10316132	Environmental Sustainability	1
10316133	Dining Room Customer Service	1
10809198	Intro to Psychology ☑	3

Term		17 credits
10196191	Supervision ☑	3
10316137	Beverage Management	1
10316136	Purchasing & Receiving	3
10316139	Restaurant Operations	4
10809166	Intro to Ethics: Theory & Application ☑	3

**Total credits 60-61**

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		8 credits
10316112	Sanitation for Foodservice Operations ☑	1
10316121	Food Science	2
10316125	Introduction to Food Production	3
10316126	Culinary Applications	2

Term		8-9 credits
10316128	Introduction to Foodservice	3
10316129	Culinary Internship	2
10804107	College Mathematics ☑	3
	-or-	
10804189	Introductory Statistics ☑	3
	-or-	
10804118	Intermediate Algebra with Applications ☑	4

Term		8 credits
10316131	Nutrition ☑	2
10801195	Written Communication ☑ -or-	
10801136	English Composition 1 ☑	3
10809103	Think Critically & Creatively ☑	3

Term		8 credits
10316130	Introduction to Baking	2
10316138	Garde Manger	3
10801196	Oral/Interpersonal Communication ☑ -or-	
10801198	Speech ☑	3

Term		7 credits
10316127	Menu Planning	3
10316132	Environmental Sustainability	1
10316120	Advanced Professional Cooking	3

Term		7 credits
10316137	Beverage Management	1
10316136	Purchasing & Receiving	3
10809166	Intro to Ethics: Theory & Application ☑	3

Term		7 credits
10316133	Dining Room Customer Service	1
10109134	Cost Control-Revenue Management	3
10809198	Intro to Psychology ☑	3

Term		7 credits
10196191	Supervision ☑	3
10316139	Restaurant Operations	4

**Total credits 60-61**

## MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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



# COURSE DESCRIPTIONS

## Advanced Professional Cooking

**10316120 .....3 credits**

Through this course, students will take the concepts learned in their previous courses to the next level. Students will refine their skills using modern professional equipment and techniques following industry standards for high-end foods. With an emphasis on presentation, flavors, recipe creation, and time management, students will gain a better understanding of their own personal palate and what constitutes a fine dining experience.

*Prerequisites: Introduction to Food Production 10316125, Introduction to Foodservice 10316128, and Sanitation for Foodservice Operations 10316112*

## Beverage Management

**10316137 .....1 credit**

Students will learn to identify types of nonalcoholic beverages and alcoholic drinks. Students will learn to prepare and serve various beverages to meet established standardized recipes. Student will learn about responsible alcohol service by completing the ServSafe Alcohol training program. The ServSafe Alcohol® Training program is developed by the National Restaurant Association and experts who have direct experience with the risks involved in serving alcohol. This connection to the foodservice industry provides insights that help prepare students for difficult situations. Students will take the Responsible Alcohol certification exam at the end of the course.

## College Mathematics

**10804107 .....3 credits**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better*

## 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.

## Culinary Internship

**10316129 .....2 credits**

This internship provides students with practical knowledge and experience in the culinary industry through the lens of restaurant cooks 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 Culinary Arts program 103161, Sanitation for Foodservice Operations 10316112 and Introduction to Food Production 10316125*

## Dining Room Customer Service

**10316133 .....1 credit**

In this course, students will learn about table settings, various styles of dining room service and operations and become familiar with the importance of proper dining room guest service. Students will apply these techniques in the Restaurant Operations course later in the program.

## English Composition 1

**10801136 .....3 credits**

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

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

## Environmental Sustainability

**10316132 .....1 credit**

In this course, students will learn about responsible ingredient sourcing for restaurants including purchasing locally, farm-to-table practices, and sustainable seafood. Other topics include restaurant waste economic and environmental impact and practices for reduction, energy use in restaurants, and communicating a restaurant's environmentally sustainable practices to customers.

## Food Science

**10316121 .....2 credits**

Discover the science and history behind food preparation. Explore what happens when heat and/or cold are applied to foods and how different chemicals can manipulate the texture, flavor, and appearance of foods. This course will also address the hierarchy of culinary titles and what comprises a professional kitchen.

# COURSE DESCRIPTIONS

## **Garde Manger**

**10316138.....3 credits**

In this course, students will learn to prepare cold soups, cold sauces, cheese platters, charcuterie boards, pâtés and terrines, as well as salads and decorative fruit and vegetable displays.

*Corequisite: Sanitation for Foodservice Operations 10316112*

## **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 2.6 and MMM\_1 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Pre-Algebra 10834109 with a "C" or better*

## **Introduction to Baking**

**10316130 .....2 credits**

Students will learn baking theory through online and workbook exercises and then apply this theory in class by utilizing the equipment and ingredients used in commercial baking to prepare yeast breads, quick breads, pies, cakes, and cookies and other products. The course will reinforce the knowledge and skills the student has learned in previous courses including practical kitchen safety & sanitation, mise en place, product identification, and scaling & product utilization.

*Prerequisites: Introduction to Food Production 10316125 and Sanitation for Foodservice Operations 10316112 or ServSafe® Food Manager Certification*

## **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.

*Corequisite: Sanitation for Foodservice Operations 10316112*

## **Introduction to Foodservice**

**10316128.....3 credits**

In this course, students will practice the skills they learned in the Introduction to Food Production class by operating a noncommercial foodservice outlet serving guests through a la minute and batch cooking practices. Heavy emphasis is placed on safety & sanitation, knife skills and culinary theory.

*Prerequisites: Sanitation for Foodservice Operations 10316112 and Introduction to Food Production 10316125*

## **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 2.6 and MMM\_2 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better*

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **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.

## **Nutrition**

**10316131 .....2 credits**

This course covers key concepts in nutrition including nutrition basics, nutritional standards and guidelines, nutrition programs, market and menu assessment, cooking for health, allergens and special diets, and menu labeling regulations. As part of the course, students will complete a field project and have the opportunity to earn a ManageFirst® Certificate in Nutrition.

# COURSE DESCRIPTIONS

## Oral/Interpersonal Communication ☑

**10801196 .....3 credits**

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

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

## Purchasing & Receiving

**10316136 .....3 credits**

In this course, students will learn how to prepare vendor orders using product requisitions from kitchen classes, enter orders online using vendor website, receive products in a safe and secure manner, organize refrigerated, frozen and dry cooler spaces to ensure food safety and anti-theft standards are met, conduct and extend a product inventory and produce, update and maintain food receiving and storage logs utilizing a modified HACCP system to document food safety practices.

## Restaurant Operations

**10316139 ..... 4 credits**

Restaurant Operations students will complete product preparation sheets using standardized recipes and restaurant reservations. Students will set up a kitchen for service, including equipment, supplies, and mise en place and prepare menu items to order or buffet style as required. Students will take guest reservations, greet and serve guests, and utilize a point of sale system for order entry and guest check reconciliation.

*Prerequisite: Sanitation for Foodservice Operations 10316112  
Corequisite: Purchasing & Receiving 10316136.*

## Sanitation for Foodservice Operations ☑

**10316112 ..... 1 credit**

Students examine the causes of food-borne illness and apply techniques for preparing, storing, and serving hot and cold foods from a ServSafe® Certified Instructor/Proctor. Students also examine the role of management and workers related to sanitation regulations and standards. The ServSafe® certification test is administered in this course and students will need to hold this valid certificate for graduation and employment in the culinary industry.

## Speech ☑

**10801198 .....3 credits**

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

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

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

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

## Written Communication ☑

**10801195 .....3 credits**

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

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



# CUSTOMER RELATIONSHIP PROFESSIONAL

## Technical Diploma Program Code: 30-106-8 Total Credits: 12

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:

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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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# CAREER PATHWAY • BEGIN AT ANY POINT



## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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



## CERTIFICATE

### BUSINESS SKILLS

Certificate • 9 Credits

### FUNDAMENTALS OF BUSINESS ADMINISTRATION

Certificate • 9 Credits

### HUMAN RESOURCES FOUNDATIONS

Certificate • 9 Credits

### SMALL BUSINESS ENTREPRENEURSHIP

Certificate • 9 Credits

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



## TECHNICAL DIPLOMA

### CUSTOMER RELATIONSHIP PROFESSIONAL

Technical Diploma • 12 Credits

#### Start Your Career

- Call Center Agent
- Customer Care Representative
- Customer Service Representative

### ENTREPRENEUR

Technical Diploma • 16 Credits

#### Start Your Career

- Business Owner
- Entrepreneur
- Founder/CEO

### HUMAN RESOURCES ASSISTANT

Technical Diploma • 32 Credits

#### Start Your Career

- HR Generalist
- HR Recruitment Coordinator
- Job Analyst

### OFFICE SUPPORT SPECIALIST

Technical Diploma • 32 Credits

#### Start Your Career

- Administrative Assistant
- Office Assistant
- Receptionist



## ASSOCIATE IN APPLIED SCIENCE (AAS)

### BUSINESS MANAGEMENT

Associate in Applied Science (AAS) • 64-65 Credits

#### Start Your Career

- Account Executive
- Department Supervisor
- Office Manager



## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Viterbo University, Western Governor's University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Human Resources
- Project Management
- Leadership Development





## SAMPLE FULL-TIME CURRICULUM OPTION

Term		12 credits
10102101	Intro to Business ☑	3
10106106	Quality Customer Service	3
10801195	Written Communication ☑	3
10801198	Speech ☑	3
<b>Total credits</b>		<b>12</b>

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

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10102101	Intro to Business ☑	3
10801198	Speech ☑	3
<b>Total credits</b>		<b>6</b>

Term		6 credits
10106106	Quality Customer Service	3
10801195	Written Communication ☑	3
<b>Total credits</b>		<b>12</b>

### MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

## COURSE DESCRIPTIONS

### 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.

### Quality Customer Service

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

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

### Speech ☑

**10801138.....3 credits**

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

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

### Written Communication ☑

**10801136.....3 credits**

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

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



# DENTAL ASSISTANT

## Technical Diploma Program Code: 30-508-2 Total Credits: 16

In this program, you will learn to use dental equipment, expose and process radiographs, assist with dental emergencies, record medical and dental information, maintain a supply inventory, and perform related dental office and laboratory procedures. Students in the program receive practical training on-site with one of our dental office partners. Hands-on experiences include working with dental practice management software and dental equipment and materials. Students will also operate x-ray units and other digital imaging devices to perform radiographs.

**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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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
- Criminal Background Statement of  
Understanding and Release of  
Information Form
- Other: \_\_\_\_\_  
\_\_\_\_\_



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# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### DENTAL ASSISTANT

Technical Diploma • 16 Credits

#### Start Your Career

- Dental Assistant
- Orthodontic Assistant

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Health & Wellness Promotion
- Health Information Management
- Medical Assistant
- Medical Coder
- Nursing
- Nursing Assistant
- Phlebotomy Technician
- Respiratory Therapy
- Sterile Processing Technician
- Surgical Technology

## PROGRAM OUTCOMES

Employers will expect you, as a Dental Assistant graduate, to be able to:

- Perform a variety of entry-level supportive dental procedures.
- Manage infection and hazard control.
- Produce diagnostic radiographs.
- Perform basic dental laboratory procedures.
- Demonstrate professional behaviors, ethics, and appearance.

## 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 notified of their TSA assessment in the final few courses of the program.

## ADDITIONAL ENTRY CRITERIA

To apply to the Dental Assistant 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 dental assistant is available at [mstc.edu/programs/dental-assistant](http://mstc.edu/programs/dental-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 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.

## 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

**10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.



# COURSE DESCRIPTIONS

## Applied Dental Radiography

**31508305** .....2 credits

Prepares dental auxiliary students to operate x-ray units and expose bitewing, periapical, extra oral, and occlusal images. Emphasis is placed on protection against x-ray hazards. Students also process, mount, and evaluate dental images for diagnostic value. In this course students demonstrate competency on a manikin. In addition, students expose bitewing and periapical images on a peer or patient. Students gain further experience in exposing images on patients in the clinical portion of their program. This course also provides the background in radiographic theory required for students to make informed decisions and adjustments.

*Prerequisite: Admission to Dental Assistant program 305082; Corequisites: Dental Assistant Clinical 31508306, Dental & General Anatomy 31508304, Dental Chairside 31508302, and Dental Materials 31508303*

## Dental & General Anatomy

**31508304** .....2 credits

Apply fundamentals of general and dental anatomy to informed decision-making and to professional communication with colleagues and patients.

*Prerequisite: Admission to the Dental Assistant program. Corequisites: 31508305 Applied Dental Radiography, 31508302 Dental Chairside, 31508306 Dental Assistant Clinical, 31508303 Dental Materials.*

## Dental Assistant Clinical

**31508306** .....3 credits

Apply skills in a clinical setting with patients. Integration of core abilities and basic occupational skills are emphasized.

*Prerequisite: Admission to the Dental Assistant program. Corequisites: 31508302 Dental Chairside, 31508304 Dental & General Anatomy, 31508305 Applied Dental Radiography, 31508303 Dental Materials.*

## Dental Assistant Professional

**31508307** .....1 credit

Develop professional appearance and image and learn to work within ethical guidelines and legal frameworks. Develop and customize a portfolio and on-going professional development plan to prepare for the workforce.

*Prerequisite: Admission to the Dental Assistant program 305082. Corequisites: 31508306 Dental Assistant Clinical, 31508305 Applied Dental Radiography, 31508302 Dental Chairside.*

## Dental Chairside

**31508302** .....5 credits

Prepares dental assistant students to chart oral cavity structures, dental pathology, and restorations and to assist a dentist with basic dental procedures including examinations, pain control, amalgam restoration, and cosmetic restoration. Students will also develop the ability to educate patients about preventive dentistry, brushing and flossing techniques, and dental procedures, using lay terminology. Throughout the course, students will apply decoding strategies to the correct use and interpretation of dental terminology.

*Prerequisite: Admission to the Dental Assistant program. Corequisites: 31508306 Dental Assistant Clinical, 31508304 Dental & General Anatomy, 31508305 Applied Dental Radiography, 31508303 Dental Materials.*

## Dental Health Safety

**31508301** .....1 credit

Prepares dental auxiliary students to respond proactively to dental emergencies, control infection, prevent disease, adhere to OSHA Standards, and safely manage hazardous materials. Students also take patient vital signs and collect patient medical/dental histories. CPR certification is a prerequisite; students will be required to show proof of certification before beginning the course. This course is a WTCS aligned course required in both the Dental Hygienist and Dental Assisting programs.

*Prerequisite: Admission to Dental Assistant program 305082*

## Dental Materials

**31508303** .....2 credits

Prepares dental auxiliary students to handle and prepare dental materials such as liners, bases, cements, amalgam, resin restorative materials, gypsum products, and impression materials. They also learn to take alginate impressions on manikins and clean removable appliances. This course is aligned to serve students in the Dental Hygienist and Dental Assistant programs.

*Prerequisite: Admission to Dental Assistant program 305082; Corequisites: Dental Assistant Clinical 31508306, Dental & General Anatomy 31508304, Applied Dental Radiography 31508305, and Dental Chairside 31508302*





# DIESEL & HEAVY EQUIPMENT TECHNICIAN

**Technical Diploma**  
**Program Code: 32-412-1**  
**Total Credits: 58-59**

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

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### CHECKLIST:

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

# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### DIESEL & HEAVY EQUIPMENT TECHNICIAN ASSISTANT

Technical Diploma • 29 Credits

#### Start Your Career

- Light Maintenance Technician
- Parts Associate
- Undercarriage Technician

### DIESEL & HEAVY EQUIPMENT TECHNICIAN

Technical Diploma • 58-59 Credits

#### Start Your Career

- Bus and Truck Technician
- Heavy Equipment Technician
- Fleet Maintenance Technician

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

## 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 the Capstone-Live Diesel Repair course.

## 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

**10831104 .....3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
10457119	Fabrication Fundamentals 1	1
31442320	Welding Foundations 1	1
31442321	Welding Foundations 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		14 credits
31801368	Workplace Communication	1
32462302	Mobile Hydraulics ☑	2
32412305	Preventive Maintenance-Diesel	3
32412312	Drivetrains	4
32412313	Electrical Systems	4

Term		15-16 credits
31804305	Applied Mathematics	2
	<b>-or-</b>	
10804107	College Mathematics ☑	3
32412303	Heating/AC-Diesel ☑	3
32412324	Engine Repair	5
32412327	Fuel Systems & Alternative Fuels	5

Term		14 credits
32412310	Engine Performance & Emissions-Diesel	5
32412311	Advanced Electricity-Diesel	5
32412330	Capstone-Live Diesel Repair	2
32806351	Applied Science	2

**Total credits 58-59**

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		11 credit
32412308	Braking Systems-Diesel	5
32412309	Suspension & Steering Systems	5
32412340	Intro to Electricity for the Diesel Industry ☑	1

Term		12 credits
32412305	Preventive Maintenance-Diesel	3
32412313	Electrical Systems	4
32412324	Engine Repair	5

Term		7-8 credits
10457119	Fabrication Fundamentals 1	1
10457120	Fabrication Fundamentals 2	1
31442320	Welding Foundations 1	1
31442321	Welding Foundations 2	1
31804305	Applied Mathematics	2
	<b>-or-</b>	
10804107	College Mathematics ☑	3
32412375	Service Practices in Diesel Industry ☑	1

Term		10 credits
31801368	Workplace Communication	1
32412303	Heating/AC-Diesel ☑	3
32412312	Drivetrains	4
32806351	Applied Science	2

Term		7 credits
32412327	Fuel Systems & Alternative Fuels	5
32462302	Mobile Hydraulics ☑	2

Term		12 credits
32412310	Engine Performance & Emissions-Diesel	5
32412311	Advanced Electricity-Diesel	5
32412330	Capstone-Live Diesel Repair	2

**Total credits 58-59**

### MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Advanced 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: Engine Repair 32412324 and Fuel Systems & Alternative Fuels 32412327*

## Applied Mathematics

**31804305 .....2 credits**

Students taking Applied Mathematics 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.

## Applied Science

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

This survey course in basic physics is designed for students in the Automotive Technician, Diesel & Heavy Equipment Technician, and Precision Machining 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.

## 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.

## 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*

## College Mathematics

**10804107 .....3 credits**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better*

## 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: 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.

*Prerequisite: Intro to Electricity for the Diesel Industry 32412340*

## 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: Engine Repair 32412324 and Fuel Systems & Alternative Fuels 32412327*

# COURSE DESCRIPTIONS

## 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.

## 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 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.

## 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.

## 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.

## Mobile Hydraulics ☑

**32462302.....2 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.

## 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: Suspension & Steering Systems 32412309 and 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.

## 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.

## Welding Foundations 1

**31442320.....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 Foundations 2

**31442321.....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.

## Workplace Communication

**31801368.....1 credit**

Analyze workplace communication situations to develop professional verbal and written communication skills. Learners apply verbal and written communication skills, as well as conflict resolution strategies, to improve workplace communication climates and promote personal and professional growth.





# DIESEL & HEAVY EQUIPMENT TECHNICIAN ASSISTANT

**Technical Diploma**  
**Program Code: 31-412-2**  
**Total Credits: 29**

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, hydraulics, 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).

### 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**  
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

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- Heavy Equipment Technician
- Fleet Maintenance Technician

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### BACHELOR'S DEGREE OPTIONS

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Automotive Maintenance Technician
- Automotive Technician

## PROGRAM OUTCOMES

Employers will expect you, as a Diesel & Heavy Equipment Technician Assistant graduate, to be able to:

- Practice personal and professional work habits.
- Perform basic maintenance for the diesel and heavy equipment industry.
- Perform light repairs for the diesel and heavy equipment industry.

## 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 through the Braking, Steering & Suspension, and Electrical ASE tests.

## 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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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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

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Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
10457119	Fabrication Fundamentals 1	1
31442320	Welding Foundations 1	1
31442321	Welding Foundations 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		14 credits
31801368	Workplace Communication	1
32462302	Mobile Hydraulics ☑	2
32412305	Preventive Maintenance-Diesel	3
32412312	Drivetrains	4
32412313	Electrical Systems	4

**Total credits 29**

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		9 credits
10457119	Fabrication Fundamentals 1	1
31442320	Welding Foundations 1	1
31442321	Welding Foundations 2	1
32412309	Suspension & Steering Systems	5
32412375	Service Practices in Diesel Industry ☑	1

Term		6 credits
32412308	Braking Systems-Diesel	5
32412340	Intro to Electricity for the Diesel Industry ☑	1

Term		7 credits
31801368	Workplace Communication	1
32462302	Mobile Hydraulics ☑	2
32412312	Drivetrains	4

Term		7 credits
32412305	Preventive Maintenance-Diesel	3
32412313	Electrical Systems	4

**Total credits 29**

## 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.

### 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: 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.

*Prerequisite: Intro to Electricity for the Diesel Industry 32412340*

### 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 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.

# COURSE DESCRIPTIONS

## Mobile Hydraulics

**32462302 .....2 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.

## 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: Suspension & Steering Systems 32412309 and 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.

## 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.

## Welding Foundations 1

**31442320 ..... 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 Foundations 2

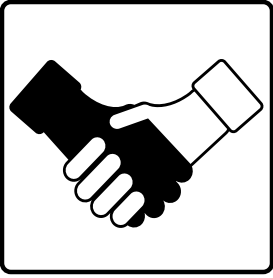
**31442321 ..... 1 credit**

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.

## Workplace Communication

**31801368 ..... 1 credit**

Analyze workplace communication situations to develop professional verbal and written communication skills. Learners apply verbal and written communication skills, as well as conflict resolution strategies, to improve workplace communication climates and promote personal and professional growth.



# DIGITAL MARKETING

## Associate in Applied Science (AAS) Program Code: 10-104-8 Total Credits: 63-64

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:

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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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Wisconsin Rapids, WI 54494



# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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- Certifications and Licenses
- High School Credit
- Military Experience
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## TECHNICAL DIPLOMA

### DIGITAL MARKETING PROMOTIONS

Technical Diploma • 18 Credits

### SALES SPECIALIST

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#### Start Your Career

- Digital Marketing Coordinator
- Marketing Assistant
- Social Media Specialist

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## ASSOCIATE IN APPLIED SCIENCE (AAS)

### DIGITAL MARKETING

Associate in Applied Science (AAS) • 63-64 Credits

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- Advertising and Promotions Manager
- Marketing Coordinator

## BACHELOR'S DEGREE

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Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### **10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
10102101	Intro to Business ☑	3
10103106	Microsoft Office-Introduction ☑	3
10104102	Marketing Principles ☑	3
10104108	Adobe Visual Design	3
10801136	English Composition 1 ☑ -or-	
10801195	Written Communication ☑	3
Term		16-17 credits
10103124	Excel-Intermediate ☑	1
10104105	Professional Selling	3
10104107	Social Media Marketing	3
10104109	Adobe Video Design	3
10104121	Fundamentals of Marketing Communications ☑	3
10804107	College Mathematics ☑	3
	-or-	
10804118	Intermediate Algebra with Applications ☑	4
	-or-	
10804189	Introductory Statistics ☑	3
Term		16 credits
10102121	Finance and Budgeting ☑ -or-	
10101140	Accounting 1 ☑	3
10104125	Promotion Management	4
10104174	Marketing Research	3
10104180	Internet and Mobile Marketing	3
10801198	Speech ☑ -or-	
10801196	Oral/Interpersonal Communication ☑	3
Term		16 credits
10152187	Web Site Development for Business	3
10104160	Marketing Management	4
10809196	Intro to Sociology ☑ -or-	
10809122	Intro to American Government ☑ -or-	
10809172	Introduction to Diversity Studies ☑	3
10809198	Intro to Psychology ☑ -or-	
10809188	Developmental Psychology ☑	3
10809195	Economics ☑	3
<b>Total credits 63-64</b>		

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

Please Note:

- This program can be completed entirely online.
- Students complete a full-time course load over a 16-week format. 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/schedule](http://mstc.edu/schedule).

## MULTIPLE MEASURES

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

## SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10103106	Microsoft Office-Introduction ☑	3
10104102	Marketing Principles ☑	3
Term		9-10 credits
10102101	Intro to Business ☑	3
10104105	Professional Selling	3
10804107	College Mathematics ☑	3
	-or-	
10804118	Intermediate Algebra with Applications ☑	4
	-or-	
10804189	Introductory Statistics ☑	3
Term		7 credits
10103124	Excel-Intermediate ☑	1
10104108	Adobe Visual Design	3
10801136	English Composition 1 ☑ -or-	
10801195	Written Communication ☑	3
Term		9 credits
10104107	Social Media Marketing	3
10104109	Adobe Video Design	3
10104121	Fundamentals of Marketing Communications ☑	3
Term		7 credits
10104125	Promotion Management	4
10801198	Speech ☑ -or-	
10801196	Oral/Interpersonal Communication ☑	3
Term		9 credits
10102121	Finance and Budgeting ☑ -or-	
10101140	Accounting 1 ☑	3
10152187	Web Site Development for Business	3
10809198	Intro to Psychology ☑ -or-	
10809188	Developmental Psychology ☑	3
Term		9 credits
10104174	Marketing Research	3
10104180	Internet and Mobile Marketing	3
10809196	Intro to Sociology ☑ -or-	
10809122	Intro to American Government ☑ -or-	
10809172	Introduction to Diversity Studies ☑	3
Term		7 credits
10104160	Marketing Management	4
10809195	Economics ☑	3
<b>Total credits 63-64</b>		

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

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Accounting 1

**10101140.....3 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**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## 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**

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

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

## 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.

# COURSE DESCRIPTIONS

## **Fundamentals of Marketing Communications** ☑

**10104121** .....3 credits

This course prepares the learner to create and manage a wide range of internal and external organizational communications. 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, developing a professional appearance and polish, presentation techniques for the creation and delivery of complex marketing materials, writing press releases, managing crises, and speaking with the media.

## **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 2.6 and MMM\_1 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Pre-Algebra 10834109 with a "C" or better*

## **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. This course will prepare students to complete the Google AdWord Certification.

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to 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, social organization, and workplace issues.

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

## **Introduction to Diversity Studies** ☑

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

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

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

## **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 2.6 and MMM\_2 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better*

## **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, Fundamentals of Marketing Communications 10104121*



# COURSE DESCRIPTIONS

## 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. This course prepares students for the Associate level MOS Certification exams for Word, Excel, PowerPoint, and Outlook. Students should possess basic keyboarding, mouse, and Windows 10 skills. Students may develop these skills in the Academic Learning Center 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## 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. Includes informative, persuasive, and occasion speech presentations.

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

## 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. This course will prepare students to complete the Google Analytics - Beginner Certification.

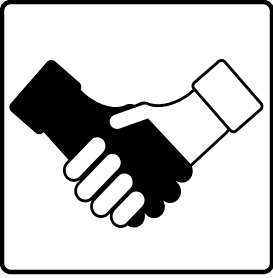
## Written Communication ☑

**10801195** .....3 credits

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

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





# DIGITAL MARKETING PROMOTIONS

## Technical Diploma Program Code: 30-104-8 Total Credits: 18

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

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### CHECKLIST:

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Form(s): \_\_\_\_\_
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Certificate • 6 Credits

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- Marketing Assistant
- Social Media Specialist

#### Start Your Career

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- Field Sales Representative
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- Marketing Coordinator

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### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## PROGRAM OUTCOMES

Employers will expect you, as a Digital Marketing Promotions graduate, to be able to:

- Apply digital marketing principles.
- Create digital marketing content.
- Promote products and services.
- Create digital marketing content for product, services, images, and ideas.
- Integrate tools and technology for digital marketing initiatives.

## 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 Social Media Marketing, Adobe Visual Design, and Adobe Video Design will fulfill the TSA requirement.

## 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### 10831104 ..... 3 credits

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE PART-TIME CURRICULUM OPTION

Term		9 credits
10104102	Marketing Principles ☑	3
10104108	Adobe Visual Design	3
10104180	Internet and Mobile Marketing	3

Term		9 credits
10104107	Social Media Marketing	3
10104109	Adobe Video Design	3
10104121	Fundamentals of Marketing Communications ☑	3

**Total credits 18**

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

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

# COURSE DESCRIPTIONS

## 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.

## Fundamentals of Marketing Communications ☑

**10104121.....3 credits**

This course prepares the learner to create and manage a wide range of internal and external organizational communications. 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, developing a professional appearance and polish, presentation techniques for the creation and delivery of complex marketing materials, writing press releases, managing crises, and speaking with the media.

## 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. This course will prepare students to complete the Google AdWord Certification.

## 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.



# 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.

Mid-State's Emergency Medical Technician program prepares students to obtain the required licensure to be employed/practice in the state of Wisconsin. The College does not guarantee its curriculum matches the requirements for preparation, examination, or licensure for other states.

**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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500 32nd Street North  
Wisconsin Rapids, WI 54494

# CAREER PATHWAY • BEGIN AT ANY POINT

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## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### EMERGENCY MEDICAL TECHNICIAN

Technical Diploma • 5 Credits

#### Start Your Career

- Emergency Medical Technician

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

Graduates of the Emergency Medical Technician technical diploma may advance into either the EMT-Paramedic program or Paramedic Technician program.

## OTHER OPTIONS

### RELATED PROGRAMS

- Advanced Emergency Medical Technician
- Criminal Justice-Corrections & Community Advocacy
- Criminal Justice-Law Enforcement 720 Academy
- Criminal Justice-Studies
- Emergency Services Management
- EMT-Paramedic
- Fire Service Certification
- 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 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.

### College Reading and Writing 1

**10831104 .....3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE CURRICULUM OPTIONS

<b>Term</b>		<b>3 credits</b>
10531940	EMT Foundations	3
<b>Total credits 5</b>		
----- <b>OR</b> -----		
<b>Term</b>		<b>2 credits</b>
10531941	EMT Applications	2
<b>Total credits 5</b>		
<b>Term</b>		<b>5 credits</b>
10531168	EMT Basic	3
<b>Total credits 5</b>		

**Please Note:**

- The curriculum offered in EMT Basic course is the same that students would experience in the EMT Foundations and EMT Applications courses.
- This curriculum sequence is only for student planning. Actual student schedules will vary depending on course availability.
- Program completion time may vary based on student scheduling and course availability. For details, go to [mstc.edu/schedule](http://mstc.edu/schedule).

**NOTES:**

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## COURSE DESCRIPTIONS

**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 Basic**

**10531168.....5 credits**

Based upon the State of Wisconsin/U.S. Department of Transportation/National Highway Transportation Safety Administration curriculum, this 185 hour program includes, classroom instruction-lectures, discussion, demonstrations, skill practice and an additional patient care experience, which requires a minimum of ten patient care contacts.

*Prerequisite: Admission to Paramedic Technician program 105311 or Emergency Medical Technician program 305313 or Fire Service Certification program 3050322*

**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 Service Certification program 305032*



# 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: \_\_\_\_\_  
\_\_\_\_\_



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## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### EMERGENCY SERVICES MANAGEMENT

Associate in Applied Science (AAS) • 60 Credits

#### Start Your Career

- Assistant Chief
- Captain/Lieutenant
- EMS Supervisor

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

American Public University System, Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, Southern Illinois University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Advanced Emergency Medical Technician
- Criminal Justice-Corrections & Community Advocacy
- Criminal Justice-Law Enforcement 720 Academy
- Criminal Justice-Studies
- Emergency Medical Technician
- EMT-Paramedic
- Fire Service Certification
- 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

**10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10503123	Occupational Safety and Health for Emergency Services	3
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
10546112	Mental Wellness for Emergency Services	2
10801136	English Composition 1 ☑	3

Term		16 credits
10503122	Principles of Emergency Services Administration ☑	4
10196135	Conflict Resolution	3
10503195	Fire Behavior & Combustion <b>-or-</b>	
10531171	EMS Leadership Challenges	3
10804107	College Mathematics ☑	3
10809166	Intro to Ethics: Theory & Applicatio ☑n	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 ☑	4
10801196	Oral/Interpersonal Communication ☑ <b>-or-</b>	
10801198	Speech ☑	3
10809172	Introduction to Diversity Studies ☑ <b>-or-</b>	
10809122	Intro to American Government ☑ <b>-or-</b>	
10809196	Intro to Sociology ☑	3

**Total credits 60**

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		10 credits
10503123	Occupational Safety and Health for Emergency Services	3
10503121	Emergency Services Safety and Survival	2
10503143	Building Construction for Fire Protection <b>-or-</b>	
10531170	Intro to Evidence-Based EMS	3
10546112	Mental Wellness for Emergency Services	2

Term		9 credits
10196135	Conflict Resolution	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 ☑	4
10801196	Oral/Interpersonal Communication ☑ <b>-or-</b>	
10801198	Speech ☑	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
10809172	Introduction to Diversity Studies ☑ <b>-or-</b>	
10809122	Intro to American Government ☑ <b>-or-</b>	
10809196	Intro to Sociology ☑	3

**Total credits 60**

## MULTIPLE MEASURES

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

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

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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



# COURSE DESCRIPTIONS

## **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**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better*

## **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*

## **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.

## **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**

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

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

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

# COURSE DESCRIPTIONS

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to 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, social organization, and workplace issues.

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

## **Introduction to Diversity Studies ☑**

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

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

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

## **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*

## **Mental Wellness for Emergency Services**

**10546112 .....2 credits**

Learners in this course will examine the issues that affect employees' mental health. They will study important concepts, such as recognizing mental health issues, improving work/life balance, creating a healthy work culture, and the managers' role in supporting the mental health of their staff.

## **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*

## **Oral/Interpersonal Communication ☑**

**10801196 .....3 credits**

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

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

## **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*

# COURSE DESCRIPTIONS

## **Speech ☒**

**10801198 .....3 credits**

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

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

## **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*



# 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.

Mid-State's EMT-Paramedic program prepares students to obtain the required licensure to be employed/practice in the state of Wisconsin. The College does not guarantee its curriculum matches the requirements for preparation, examination, or licensure for other states.

**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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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
- Criminal Background Statement of  
Understanding and Release of  
Information Form
- Other: \_\_\_\_\_  
\_\_\_\_\_



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# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### EMT-PARAMEDIC

Technical Diploma • 38 Credits

#### Start Your Career

- Emergency/Urgent Care Technician
- Paramedic Technician

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### PARAMEDIC TECHNICIAN

Associate in Applied Science (AAS) • 66 Credits

#### Start Your Career

- Paramedic
- Emergency Department Technician

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, Southern Illinois University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Advanced Emergency Medical Technician
- Criminal Justice-Corrections & Community Advocacy
- Criminal Justice-Law Enforcement 720 Academy
- Criminal Justice-Studies
- Emergency Medical Technician
- Emergency Services Management
- Fire Service Certification

## 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.





# COURSE DESCRIPTIONS

## 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 learners 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. Learners obtain fundamental knowledge of public health principles and epidemiology as related to public health emergencies, health promotion, and illness/injury prevention. Introduces learners to comprehensive anatomical and medical terminology with the aim of fostering the development of effective communications with colleagues and other healthcare professionals.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## 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

**10531959 .....2 credits**

Enhances learning through the practice of paramedicine in a healthcare environment. Learners will experience actual patients under the supervision of instructors or approved preceptors. Learners will also have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## Paramedic Clinical/Field Prep

**10531960 ..... 1 credit**

Enhances learning through the practice of paramedicine in a healthcare or field environment. Learners will experience actual patients under the supervision of instructors or approved preceptors.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## 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.

*Prerequisites: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311 and Advanced Resuscitation 10531918*

## 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*

# COURSE DESCRIPTIONS

## **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.

*Prerequisites: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311 and Advanced Resuscitation 10531918*

## **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*



# ENTREPRENEUR

## Technical Diploma Program Code: 30-145-2 Total Credits: 16

Mid-State's Entrepreneur 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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With: \_\_\_\_\_
- Official Transcripts  
Mid-State Technical College  
Student Services Assistant  
1001 Centerpoint Drive  
Stevens Point, WI 54481
- Other: \_\_\_\_\_  
\_\_\_\_\_



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# CAREER PATHWAY • BEGIN AT ANY POINT



## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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



### BUSINESS SKILLS

Certificate • 9 Credits

### FUNDAMENTALS OF BUSINESS ADMINISTRATION

Certificate • 9 Credits

### HUMAN RESOURCES FOUNDATIONS

Certificate • 9 Credits

### SMALL BUSINESS ENTREPRENEURSHIP

Certificate • 9 Credits

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



### CUSTOMER RELATIONSHIP PROFESSIONAL

Technical Diploma • 12 Credits

#### Start Your Career

- Call Center Agent
- Customer Care Representative
- Customer Service Representative

### ENTREPRENEUR

Technical Diploma • 16 Credits

#### Start Your Career

- Business Owner
- Entrepreneur
- Founder/CEO



### HUMAN RESOURCES ASSISTANT

Technical Diploma • 32 Credits

#### Start Your Career

- HR Generalist
- HR Recruitment Coordinator
- Job Analyst

### OFFICE SUPPORT SPECIALIST

Technical Diploma • 32 Credits

#### Start Your Career

- Administrative Assistant
- Office Assistant
- Receptionist



### BUSINESS MANAGEMENT

Associate in Applied Science (AAS) • 64-65 Credits

#### Start Your Career

- Account Executive
- Department Supervisor
- Office Manager

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Viterbo University, Western Governor's University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Human Resources
- Project Management
- Leadership Development





## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10101140	Accounting 1 <a href="#">↗</a>	3
10102101	Intro to Business <a href="#">↗</a>	3
10102104	Business Law <a href="#">↗</a>	3
10102232	Entrepreneurial Foundations	1
10104102	Marketing Principles <a href="#">↗</a>	3
10106106	Quality Customer Service	3

**Total credits 16**

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		7 credits
10102101	Intro to Business <a href="#">↗</a>	3
10102232	Entrepreneurial Foundations	1
10106106	Quality Customer Service	3

Term		9 credits
10101140	Accounting 1 <a href="#">↗</a>	3
10102104	Business Law <a href="#">↗</a>	3
10104102	Marketing Principles <a href="#">↗</a>	3

**Total credits 16**

## COURSE DESCRIPTIONS

### Accounting 1 [↗](#)

**10101140.....3 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 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.

### Entrepreneurial Foundations

**10102232.....1 credit**

Learners study entrepreneurial practices by exploring components of a startup business plan. 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.

### 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 [↗](#)

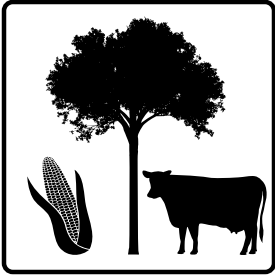
**10104102.....3 credits**

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.

### Quality Customer Service

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

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



# 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).

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# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## CERTIFICATE

### AGRICULTURE DIESEL ENGINES AND EQUIPMENT

Certificate • 5 Credits

### AGRONOMY EQUIPMENT BASICS

Certificate • 5 Credits

### INTRODUCTION TO AGRICULTURE BUSINESS

Certificate • 8 Credits

### INTRODUCTION TO AGRICULTURE TOPICS

Certificate • 10 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## TECHNICAL DIPLOMA

### AGRIBUSINESS AGRONOMY TECHNICIAN

Technical Diploma • 27 Credits

#### Start Your Career

- Grower
- Field Worker
- Irrigator

### FARM OPERATION

Technical Diploma • 27 Credits

#### Start Your Career

- Production Agriculturalist
- Herdsman
- Livestock Breeder

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### AGRIBUSINESS SCIENCE & TECHNOLOGY

Associate in Applied Science (AAS) • 61-62 Credits

#### Start Your Career

- Agronomy Technician
- Herdsman
- Production Agriculture Manager

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Iowa State University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Platteville, UW-River Falls, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governor's University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Arborist Technician
- Utility Tree Trimmer

## 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 Principles of Crop Management, Agribusiness Equipment & Facilities, Agriculture Business Management, and Intro to Animal Science courses.

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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 May every school year. Classes are scheduled from 10:00 a.m. – 4:00 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### **10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.



# COURSE DESCRIPTIONS

## **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**

Includes classification and function of nutrients, deficiency symptoms, characterization of feedstuffs, and formulation of diets for domestic animals. They are also able to successfully understand the digestive processes of mono-gastric and ruminant animals.

## **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.

## **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 SERVICE CERTIFICATION

## Technical Diploma Program Code: 30-503-2 Total Credits: 16

The Fire Service Certification program teaches the entry-level fire behavior and techniques needed to control structural and related fire emergencies as well as life safety practices. EMT skills and knowledge are also learned in this program. You will gain knowledge and skills in the areas of fire suppression, victim rescue, salvage, and overhaul. You will also be exposed to realistic simulations—inside and outside the classroom—and train on Mid-State's 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.

**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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## TECHNICAL DIPLOMA

### FIRE SERVICE CERTIFICATION

Technical Diploma • 16 Credits

#### Start Your Career

- Firefighter
- Firefighter/EMT
- Firefighter/Paramedic

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Advanced Emergency Medical Technician
- Criminal Justice-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 an Fire Service Certification graduate, to be able to:

- Demonstrate professional conduct.
- Perform fire prevention activities.
- Apply incident management and mitigation skills to emergency incidents.
- Meet professional fire and EMS credentialing standards.
- Communicate clearly and effectively.
- 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-service-certification](http://mstc.edu/programs/fire-service-certification). 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 is a graduation requirement.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

**10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10531168	EMT Basic	5
10546110	Mental Wellness and Stress Management	3
30503101	Basic Firefighting and Hazmat Ops	4
30503102	Advanced Firefighting	2
30503103	Firefighter Safety and Survival	2

**Total credits 16**

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		4 credits
30503101	Basic Firefighting and Hazmat Ops	4

Term		4 credits
30503102	Advanced Firefighting	2
30503103	Firefighter Safety and Survival	2

Term		5 credits
10531168	EMT Basic	5

Term		3 credits
10546110	Mental Wellness and Stress Management	3

**Total credits 16**

## COURSE DESCRIPTIONS

### Advanced Firefighting

**30503102.....2 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: Basic Firefighting and Hazmat Ops 30503101*

### Basic Firefighting and Hazmat Ops

**30503101 ..... 4 credits**

Describes basic fire behavior, techniques used to control structural and related fire emergencies, and life safety practices. Examines characteristics relating to hazardous materials, including problems of recognition and mitigation. Learners 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 Service Certification 305035*

### EMT Basic

**10531168.....5 credits**

This course prepares students for all aspects of emergency medical care, both medical and trauma situations, sanctioned by the Wisconsin Division of Health, at the basic level. Following the most current Wisconsin Revision of the National Standard Curriculum, this course includes didactic and practical skill information in the following areas: legal aspects, anatomy and physiology, patient assessment, critical thinking skills, airway adjuncts, fractures and dislocations, spinal injuries, soft tissue wounds, pharmacology, stroke, cardiac, diabetic, respiratory, altered mental status, pediatric, geriatric, ambulance operations, and triage. Successful completion of this course prepares the learner for the National Registry practical and written examination at the EMT level.

*Prerequisite: Admission to Paramedic Technician program 105311 or Emergency Medical Technician program 305313 or Fire Service Certification program 305032*

### Firefighter Safety and Survival

**30503103.....2 credits**

Explores the concepts of firefighter safety and survival techniques on the active fireground. Practical evolutions focus on rescue techniques for self and others, as well as the function of the rapid intervention team.

*Prerequisite: Basic Firefighting and Hazmat Ops 30503101*

### Mental Wellness and Stress Management

**10546110 .....3 credits**

Learners in this course will examine the issues that affect employees' mental health. They will study important concepts, such as recognizing mental health issues, improving work/life balance, creating a healthy work culture, and the managers' role in supporting the mental health of their staff.



# FOOD SERVICE ASSISTANT

## Technical Diploma Program Code: 30-316-1 Total Credits: 18

Mid-State's Food Service Assistant technical diploma program provides the entry-level skills needed for employment in the food service industry. Students will learn and practice skills in cooking, nutrition, menu planning, and serving. All courses count toward Mid-State's Culinary Arts associate of applied science (AAS) program. During this program you will experience a hands-on learning environment. Whether you're preparing food in our state-of-the-art Culinary Kitchen lab or serving food to guests in our Gourmet Café, you'll gain valuable industry knowledge to prepare you for real-life experiences. Start by learning about food science, which provides valuable information about the nutrition, makeup, preparation, and preservation of the food we eat. Then practice your culinary skills by preparing recipes using a wide variety of techniques and ingredients. Finally, earn your industry-recognized ServSafe Manager Certification.

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

### CHECKLIST:

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

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Form(s): \_\_\_\_\_
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1001 Centerpoint Drive  
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- Other: \_\_\_\_\_  
\_\_\_\_\_



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

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

## CERTIFICATE

### COMMUNICATION ESSENTIALS

Certificate • 9 Credits

### MEAT CUTTING AND BUTCHERY

Certificate • 9 Credits

### CULINARY FOUNDATIONS

Certificate • 8 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## TECHNICAL DIPLOMA

### FOOD SERVICE ASSISTANT

Technical Diploma • 18 Credits

#### Start Your Career

- Cook
- Food Service Worker
- Food Service Specialist

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### CULINARY ARTS

Associate in Applied Science (AAS) • 60-61 Credits

#### Start Your Career

- Head Cook
- Line Cook
- Sous Chef

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

UW-Oshkosh.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Hospitality Assistant
- Hospitality Management



## PROGRAM OUTCOMES

Employers will expect you, as a Food Service Assistant graduate, to be able to:

- Apply principles of safety and sanitation in food service operations.
- Demonstrate culinary skills.
- Manage food service operations.
- Plan menus.

## 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.

## TECHNICAL STANDARDS

Students enrolled in the Food Service Assistant program must be able to meet the established technical standards identified below, which are reflective of those found in the profession.

- Ability to move or transport objects up to 50 pounds, potentially with occasional, frequent, or constant exertion.
- Ability to detect and respond to emergencies.
- Sufficient endurance, strength, mobility, balance, flexibility, and coordination to perform activities and emergency procedures.
- Sufficient sensory (auditory, visual, taste, smell, tactile) ability in order to detect temperature and/or environmental temperature, detect freshness or state of product, etc.

## PROGRAM PROGRESSION

In order to progress in and successfully complete the program, students must repeat core courses (courses numbered 10-316-xxx) not completed with a grade of “C” or better prior to progressing in core courses or other courses with co- or pre-requisites.

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

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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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

**10831104 .....3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		8 credits
10316112	Sanitation for Foodservice Operations ☑	1
10316121	Food Science	2
10316125	Introduction to Food Production	3
10316126	Culinary Applications	2

Term		10 credits
10316128	Introduction to Foodservice	3
10316129	Culinary Internship	2
10316130	Introduction to Baking	2
10316138	Garde Manger	3

**Total credits 18**

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

Please Note:

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

# COURSE DESCRIPTIONS

## 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.

## Culinary Internship

**10316129.....2 credits**

This internship provides students with practical knowledge and experience in the culinary industry through the lens of restaurant cooks 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 Culinary Arts program 103161, Sanitation for Foodservice Operations 10316112 and Introduction to Food Production 10316125*

## Food Science

**10316121 .....2 credits**

Discover the science and history behind food preparation. Explore what happens when heat and/or cold are applied to foods and how different chemicals can manipulate the texture, flavor, and appearance of foods. This course will also address the hierarchy of culinary titles and what comprises a professional kitchen.

## Garde Manger

**10316138.....3 credits**

In this course, students will learn to prepare cold soups, cold sauces, cheese platters, charcuterie boards, pâtés and terrines, as well as salads and decorative fruit and vegetable displays.

*Corequisite: Introduction to Food Production 10316125 and Sanitation for Foodservice Operations 10316112*

## Introduction to Baking

**10316130 .....2 credits**

Students will learn baking theory through online and workbook exercises and then apply this theory in class by utilizing the equipment and ingredients used in commercial baking to prepare yeast breads, quick breads, pies, cakes, and cookies and other products. The course will reinforce the knowledge and skills the student has learned in previous courses including practical kitchen safety & sanitation, mise en place, product identification, and scaling & product utilization.

*Prerequisites: Introduction to Food Production 10316125 and Sanitation for Foodservice Operations 10316112 or ServSafe® Food Manager Certification*

## 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.

Corequisite: Sanitation for Foodservice Operations 10316112

## Introduction to Foodservice

**10316128.....3 credits**

In this course, students will practice the skills they learned in the Introduction to Food Production class by operating a noncommercial foodservice outlet serving guests through a la minute and batch cooking practices. Heavy emphasis is placed on safety & sanitation, knife skills and culinary theory.

*Prerequisites: Sanitation for Foodservice Operations 10316112 and Introduction to Food Production 10316125*

## Sanitation for Foodservice Operations ☑

**10316112 .....1 credit**

Students examine the causes of food-borne illness and apply techniques for preparing, storing, and serving hot and cold foods from a ServSafe® Certified Instructor/Proctor. Students also examine the role of management and workers related to sanitation regulations and standards. The ServSafe® certification test is administered in this course and students will need to hold this valid certificate for graduation and employment in the culinary industry.



# 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).

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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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**ADAMS CAMPUS**  
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Adams, WI 53910

**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

# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## CERTIFICATE

### FITNESS PROFESSIONAL

Certificate • 12 Credits

### GERONTOLOGY PROFESSIONAL

Certificate • 12 Credits

### HEALTH NAVIGATOR

Certificate • 12 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### HEALTH & WELLNESS PROMOTION

Associate in Applied Science (AAS) • 60-61 Credits

#### Start Your Career

- Community Health Advocate
- Health Promotion Coordinator
- Wellness Coach

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Superior, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Dental Assistant
- Health Information Management
- Medical Assistant
- Medical Coder
- Nursing
- Nursing Assistant
- Phlebotomy Technician
- Respiratory Therapy
- Sterile Processing Technician
- Surgical Technology

## 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 Program Development, Implementation, & Evaluation; Health Coaching for the Wellness Professional; Population Health & Wellness; and Health & Wellness Practicum.

## 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

**10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
10544103	Healthy Aging ☑	3
10546100	Essential Concepts for Health and Wellness	3
10801136	English Composition 1 ☑ -or-	
10801195	Written Communication ☑	3
10809196	Intro to Sociology ☑	3
10809198	Intro to Psychology ☑ -or-	
10809188	Developmental 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
10806189	Basic Anatomy	3
	-or-	
10806177	General Anatomy & Physiology ☑	4

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
10546113	Health Navigator ☑	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**

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10546100	Essential Concepts for Health and Wellness	3
10801136	English Composition 1 ☑ -or-	
10801195	Written Communication ☑	3

Term		6 credits
10809166	Intro to Ethics: Theory and Application ☑ -or-	
10809172	Introduction to Diversity Studies ☑	3
10809198	Intro to Psychology ☑ -or-	
10809188	Developmental Psychology ☑	3

Term		9 credits
10544103	Healthy Aging ☑	3
10546101	Nutrition for Healthy Living	3
10801196	Oral/Interpersonal Communication ☑ -or-	
10801198	Speech ☑	3

Term		7-8 credits
10103123	Excel-Beginning ☑	1
10806189	Basic Anatomy	3
	-or-	
10806177	General Anatomy & Physiology ☑	4
10809196	Intro to Sociology ☑	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
10546113	Health Navigator ☑	3
10546106	Health & Wellness Practicum ☑	2

**Total credits 60-61**

## MULTIPLE MEASURES

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

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

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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



# COURSE DESCRIPTIONS

## 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.

*Prerequisite: High School GPA of 2.6 and MMS\_1 or Accuplacer Reading Skills of 249 or ACT Reading score of 15*

## 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.

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## English Composition 1

**10801136 .....3 credits**

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

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

## 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 2.6 and MMS\_1 and MMM\_1 or Accuplacer Reading Skills of 262 and QAS of 246 or ACT Math score of 19 and Reading score of 19 or College Math 10804107 or Intermediate Algebra with Applications 10804118 with a "C" or better, or General Chemistry 10806134, or General Biology 10806114, or Human Body in Health & Disease 31509302*

## 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; Corequisite: Population Health & Wellness 10546104*

## 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.

## Health Navigator

**10546113 .....3 credits**

This course prepares the student to support client navigation within the healthcare and social systems. Employed in a variety of settings, the health navigator serves as the primary client liaison to organizations and systems. The student will learn how to work with clients, synchronizing care of the physical, psychological, and social needs while providing assistance through health education, the identification and reduction of barriers, and linking clients to services to address care needs.

# COURSE DESCRIPTIONS

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to 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, social organization, and workplace issues.

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

## Introduction to Diversity Studies ☑

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

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

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

## 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.

## Oral/Interpersonal Communication ☑

**10801196 .....3 credits**

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

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

## 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.

## 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*

## Speech ☑

**10801198 .....3 credits**

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

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

# COURSE DESCRIPTIONS

## **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.

## **Written Communication**

**10801195 .....3 credits**

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

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

## **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: 61-62

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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# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### MEDICAL CODER

Technical Diploma • 30 Credits

#### Start Your Career

- Medical Coder
- Medical Claims Reviewer
- Financial Services Specialist

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### HEALTH INFORMATION MANAGEMENT

Associate in Applied Science (AAS) • 61-62 Credits

#### Start Your Career

- Medical Coder/Reviewer/Educator
- Revenue Cycle Coordinator
- Healthcare Information Data Analyst

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, The College of St. Scholastica, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-La Crosse, UW-Oshkosh, UW-Parkside, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Dental Assistant
- Health & Wellness Promotion
- Medical Assistant
- Nursing
- Nursing Assistant
- Phlebotomy Technician
- Respiratory Therapy
- Sterile Processing Technician
- Surgical Technology

## 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.

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 2031.

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.

## PRACTICUM-RELATED REQUIREMENTS

Prior to placement at a practicum 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.

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 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		14-15 credits
10103106	Microsoft Office-Introduction ☑	3
10501101	Medical Terminology ☑	3
10530123	Introduction to Digital Information in Healthcare	3
10530125	Organization of Healthcare	2
10806189	Basic Anatomy	3
	<b>-or-</b>	
10806177	General Anatomy & Physiology ☑	4

Term		15 credits
10103124	Excel Intermediate ☑	1
10530144	CPT Coding	3
10530112	Legal Aspects of HIM	2
10530117	Human Disease for the Health Professions	3
10530197	ICD Diagnosis Coding	3
10801136	English Composition 1 ☑ <b>-or-</b>	
10801195	Written Communication ☑	3

Term		15 credits
10530132	Health Data Analysis	3
10530160	Performance Improvement for Health Professions	3
10804189	Introductory Statistics ☑	3
10801196	Oral/Interpersonal Communication ☑ <b>-or-</b>	
10801198	Speech ☑	3
10809198	Intro to Psychology ☑ <b>-or-</b>	
10809188	Developmental Psychology ☑	3

Term		17 credits
10530146	Private and Government Reimbursement	3
10530147	HIM Advanced Coding	3
10530113	RHIT Test Prep	1
10530114	Health Information Practicum	1
10530115	Inpatient Procedure Coding	3
10530116	Management of Health Information Services	3
10809172	Introduction to Diversity Studies ☑ <b>-or-</b>	
10809196	Introduction to Sociology ☑	3

**Total credits 61-62**

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		9-10 credits
10501101	Medical Terminology ☑	3
10530123	Introduction to Digital Information in Healthcare	3
10806189	Basic Anatomy	3
	<b>-or-</b>	
10806177	General Anatomy & Physiology ☑	4

Term		5 credits
10530112	Legal Aspects of HIM	2
10530117	Human Disease for the Health Professions	3

Term		8 credits
10103106	Microsoft Office-Introduction ☑	3
10530125	Organization of Healthcare	2
10530197	ICD Diagnosis Coding	3

Term		7 credits
10103124	Excel Intermediate ☑	1
10530144	CPT Coding	3
10801136	English Composition 1 ☑ <b>-or-</b>	
10801195	Written Communication ☑	3

Term		6 credits
10530132	Health Data Analysis	3
10804189	Introductory Statistics ☑	3

Term		9 credits
10530146	Private and Government Reimbursement	3
10530147	HIM Advanced Coding	3
10530115	Inpatient Procedure Coding	3

Term		9 credits
10530160	Performance Improvement for Health Professions	3
10801196	Oral/Interpersonal Communication ☑ <b>-or-</b>	
10801198	Speech ☑	3
10809198	Intro to Psychology ☑ <b>-or-</b>	
10809188	Developmental Psychology ☑	3

Term		8 credits
10530113	RHIT Test Prep	1
10530114	Health Information Practicum	1
10530116	Management of Health Information Services	3
10809172	Introduction to Diversity Studies ☑ <b>-or-</b>	
10809196	Introduction to Sociology ☑	3

**Total credits 61-62**

### MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## 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.

*Prerequisite: High School GPA of 2.6 and MMS\_1 or Accuplacer Reading Skills of 249 or ACT Reading score of 15*

## 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 Digital Information in Healthcare 10530123; Corequisite: Human Disease for the Health Professions 10530117*

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## English Composition 1

**10801136 .....3 credits**

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

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

## 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*

## 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 2.6 and MMS\_1 and MMM\_1 or Accuplacer Reading Skills of 262 and QAS of 246 or ACT Math score of 19 and Reading score of 19 or College Math 10804107 or Intermediate Algebra with Applications 10804118 with a "C" or better, or General Chemistry 10806134, or General Biology 10806114, or Human Body in Health & Disease 31509302*

## 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 Digital Information in Healthcare 10530123 and Excel Intermediate 10103124*

## Health Information Practicum

**10530114 .....1 credit**

Provides a blend of supervised clinical experience in a health-care 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 practicum experience, resume preparedness, and project portfolio.

*Prerequisites: Health Data Analysis 10530132, Performance Improvement for Health Professions 10530160, Legal Aspects of HIM 10530112, Inpatient Procedure Coding 10530115 Corequisites: Private & Government Reimbursement 10530146, HIM Advanced Coding 10530147.*

## 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 and Government Reimbursement 10530146 and Inpatient Procedure Coding 10530115*

# COURSE DESCRIPTIONS

## Human Disease for the Health Professions

**10530117** .....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, Basic Anatomy 10806189, and Introduction to Digital Information in Healthcare 10530123;*

*Corequisite: Human Disease for the Health Professions 10530117*

## Inpatient Procedure Coding

**10530115** .....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.

*Prerequisite: ICD Diagnosis Coding 10530197; Corequisites: Private and Government Reimbursement 10530146 and HIM Advanced Coding 10530147*

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Introduction to Digital Information in Healthcare

**10530123** .....3 credits

This introductory course examines the field of Health Information Management including the hardware and software systems used, common industry terminology, the security and ethical responsibilities of professionals in the field, and the current trends in the industry. Students will focus on accuracy and integrity of health data and confidentiality in this course.

*Corequisite: 10501101 Medical Terminology*

## Introduction to Diversity Studies

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

This course introduces the study of diversity from a local to a global perspective using a holistic, interdisciplinary approach that encourages exploration and prepares students to work in a diverse environment. The course introduces basic diversity concepts, examines the impact of bias and power differentials among groups, explores the use of culturally responsive communication strategies, and compares forces that shape diversity in an international context.

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

## Introduction to Sociology

**10806196** .....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, social organization, and workplace issues.

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

## Introductory Statistics

**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 2.6 and MMM\_2 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better*

## Legal Aspects of HIM

**10530112** .....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.

*Prerequisite: Introduction to Digital Information in Healthcare 10530123*

## Management of Health Information Services

**10530116** .....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 10530112, Health Data Analysis 10530132, and Performance Improvement for Health Professions 10530160*

# COURSE DESCRIPTIONS

## 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. This course prepares students for the Associate level MOS Certification exams for Word, Excel, PowerPoint, and Outlook. Students should possess basic keyboarding, mouse, and Windows 10 skills. Students may develop these skills in the Academic Learning Center 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Organization of Healthcare

**10530125.....2 credits**

Examines the organization and delivery of healthcare services, external standards, regulations, initiatives, payment and reimbursement systems, and healthcare providers and disciplines.

## 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 Digital Information in Healthcare 10530123 and Excel Intermediate 10103124*

## 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; Corequisites: Inpatient Procedure Coding 10530115; HIM Advanced Coding 10530147*

## RHIT Test Prep

**10530113..... 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: Health Data Analysis 10530132, Performance Improvement for Health Professions 10530160, and Legal Aspects of HIM 10530112; Corequisites: Private and Government Reimbursement 10530146, HIM Advanced Coding 10530147, and Inpatient Procedure Coding 10530115*

## Speech ☑

**10801198.....3 credits**

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

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

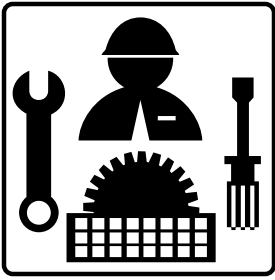
## Written Communication ☑

**10801195.....3 credits**

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

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





# HEATING, VENTILATION, & AIR CONDITIONING (HVAC) INSTALLER

**Technical Diploma**  
**Program Code: 30-401-4**  
**Total Credits: 24**

Mid-State's Heating, Ventilation, & 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: \_\_\_\_\_  
\_\_\_\_\_



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**WISCONSIN RAPIDS CAMPUS**  
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Wisconsin Rapids, WI 54494



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HIGH SCHOOL STUDENT

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RETURNING ADULT

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### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### CONSTRUCTION TRADES

Technical Diploma • 10 Credits

#### Start Your Career

- Electrical Contracting Laborer
- Carpentry Contracting Laborer
- Plumbing Contracting Laborer
- Apprenticeship

### HEATING, VENTILATION, & AIR CONDITIONING (HVAC) INSTALLER

Technical Diploma • 24 Credits

#### Start Your Career

- Building Controls Technician
- Heating, Ventilation, and Air Conditioning Installer
- Heating and Air Conditioning Mechanic
- Apprenticeship

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### RENEWABLE ENERGY TECHNICIAN

Associate in Applied Science (AAS) • 60 Credits

#### Start Your Career

- Energy Load Estimator
- Renewable Energy Technical Sales Representative
- Solar Installer
- Apprenticeship

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## PROGRAM OUTCOMES

Employers will expect you, as a Heating, Ventilation, and Air Conditioning (HVAC) Installer graduate, to be able to:

- Maintain a safe and professional work environment when installing HVAC equipment.
- Plan the installation of a gas-fired furnace with a central air conditioning system.
- Install forced air ductwork.
- Commission an HVAC system.

## 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 the Intro to HVAC Installation 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

**10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.



# 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 Components & Control Circuits**

**10482103.....2 credits**

Topics include a review of AC/DC electricity fundamentals 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.

*Prerequisite: Electrical Circuits I 10605105 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.)

## **Hydronics and Heat Pumps**

**10483113.....3 credits**

Students participate in the installation and design of a hydronic hot water and heat pump system. Topics include safety; system design and layout; component selection; mounting hydronic heat sources; installing distribution tubing; and installing heat emitters, air separator, circulation pumps, and other system components.

## **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.)

## **Piping Installation**

**10483123.....2 credits**

This course introduces students to the fundamentals of measuring, fitting, joining, and installing piping common to the plumbing and HVAC industries.

## **Safety for Construction Trades**

**10476171.....1 credit**

The Safety 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. Students will familiarize themselves with the proper selection and use of personal protective equipment and safety requirements on a construction site for various activities. Course outcomes align with the training outcomes recommended by OSHA. Upon successful completion, students will receive an OSHA 10 Card.

## **Welding Foundations 1**

**31442320.....1 credit**

An introductory welding course focusing on FCAW, GMAW and oxy-fuel cutting. Lecture and lab activities are designed to emphasize safe work habits.



# HOSPITALITY ASSISTANT

## Technical Diploma Program Code: 30-109-1 Total Credits: 24

Through Mid-State's Hospitality Assistant technical diploma program, students develop foundational skills useful in various roles within hospitality and tourism, including a basic understanding of food service operations, hospitality sales and marketing, events planning, management principles, customer service, effective communication, and creative thinking. All courses count toward Mid-State's Hospitality Management associate of applied science (AAS) program. In this program you will gain a real-world, professional perspective on the hospitality industry by participating in an on-the-job hospitality internship. In addition, you will create marketing materials, explore the inner workings of a hospitality-related business, brush up on your communication skills, and achieve your industry recognized ServSafe Manager certification.

**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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Form(s): \_\_\_\_\_
- Follow-Up Appointment:  
Where: \_\_\_\_\_  
When: \_\_\_\_\_  
With: \_\_\_\_\_
- Official Transcripts  
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Student Services Assistant  
1001 Centerpoint Drive  
Stevens Point, WI 54481
- Other: \_\_\_\_\_  
\_\_\_\_\_



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

# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## CERTIFICATE

### COMMUNICATION ESSENTIALS

Certificate • 9 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## TECHNICAL DIPLOMA

### CUSTOMER RELATIONSHIP PROFESSIONAL

Technical Diploma • 12 Credits

#### Start Your Career

- Call Center Agent
- Customer Care Representative
- Customer Service Representative

### HOSPITALITY ASSISTANT

Technical Diploma • 24 Credits

#### Start Your Career

- Concierge
- Hotel, Motel, and Resort Desk Clerk
- Host and Hostess

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### HOSPITALITY MANAGEMENT

Associate in Applied Science (AAS) • 60-61 Credits

#### Start Your Career

- Food and Beverage Director
- Hospitality and Tourism Coordinator
- Sales and Service Manager

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Culinary Arts
- Food Service Assistant





## SAMPLE FULL-TIME CURRICULUM OPTION

Term		12 credits
10102101	Intro to Business ☑	3
10106106	Quality Customer Service	3
10109101	Exploring Hospitality	3
10801198	Speech ☑	3
Term		12 credits
10103106	Microsoft Office Introduction ☑	3
10109110	Room Operations Division	3
10109160	Hospitality Internship ☑	2
10316112	Sanitation for Foodservice Operations ☑	1
10801195	Written Communication ☑	3
<b>Total credits</b>		<b>24</b>

## SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10102101	Intro to Business ☑	3
10106106	Quality Customer Service	3
Term		6 credits
10103106	Microsoft Office Introduction ☑	3
10801198	Speech ☑	3
Term		6 credits
10109101	Exploring Hospitality	3
10801195	Written Communication ☑	3
Term		6 credits
10316112	Sanitation for Foodservice Operations ☑	1
10109110	Room Operations Division	3
10109160	Hospitality Internship ☑	2
<b>Total credits</b>		<b>24</b>

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

Please Note:

- **This program can be completed entirely online.**
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- Program completion time may vary based on student scheduling and course availability. For details, go to [mstc.edu/schedule](http://mstc.edu/schedule).

### MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Exploring Hospitality

**10109101.....3 credits**

Introduces students to the broad field of hospitality management. Typical career areas include foodservice, lodging, travel/tourism, and recreation. The course will explore the industry from historical to contemporary career opportunities.

## Hospitality Internship ☑

**10109160.....2 credits**

This course is designed to give the student on-the-job work experience in the hospitality industry. Integrating the theories and techniques learned in previous courses along with specific off-campus occupational experiences allows students to gain a real-world perspective of a segment in the hospitality industry of their choosing. The student will complete academic hours related to the competencies of the course reflecting on their experiential learning. This work will provide resume and job seeking skills, develop a network of contacts, and cultivate career readiness.

## 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.

## 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. This course prepares students for the Associate level MOS Certification exams for Word, Excel, PowerPoint, and Outlook. Students should possess basic keyboarding, mouse, and Windows 10 skills. Students may develop these skills in the Academic Learning Center 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.

## 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 Foodservice Operations

**10316112 ..... 1 credits**

Students examine the causes of food-borne illness and apply techniques for preparing, storing, and serving hot and cold foods from a ServSafe® Certified Instructor/Proctor. Students also examine the role of management and workers related to sanitation regulations and standards. The ServSafe® certification test is administered in this course and students will need to hold this valid certificate for graduation and employment in the culinary industry.

## Speech ☑

**10801198 .....3 credits**

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

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

## Written Communication ☑

**10801195 .....3 credits**

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

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



# HOSPITALITY MANAGEMENT

## Associate of Applied Science Program Code: 10-109-2 Total Credits: 60-61

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

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### 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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**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

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Associate in Applied Science (AAS) • 60-61 Credits

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- Sales and Service Manager

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## OTHER OPTIONS

### RELATED PROGRAMS

- Culinary Arts
- Food Service Assistant





## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10102101	Intro to Business ☑	3
10102231	Business Networking	1
10106106	Quality Customer Service	3
10109101	Exploring Hospitality	3
10801195	Written Communication ☑ -or-	
10801136	English Composition 1 ☑	3
10801198	Speech ☑ -or-	
10801196	Oral/Interpersonal Communication ☑	3

Term		16 credits
10102230	Business Communities	1
10103106	Microsoft Office Introduction ☑	3
10104102	Marketing Principles ☑	3
10109110	Room Operations Division	3
10109160	Hospitality Internship ☑	2
10316112	Sanitation for Foodservice Operations ☑	1
10809103	Think Critically & Creatively ☑	3

Term		13-14 credits
10102232	Entrepreneurial Foundations	1
10109134	Cost Control-Revenue Management	3
10109161	Event Planning and Management	3
10196192	Managing for Quality	3
10804107	College Mathematics ☑	3
	-or-	
10804118	Intermediate Algebra with Applications ☑	4
	-or-	
10804189	Introductory Statistics ☑	3

Term		15 credits
10104107	Social Media Marketing	3
10109107	Hospitality Law and Liability	3
10196191	Supervision	3
10809172	Introduction to Diversity Studies	3
10809198	Intro to Psychology ☑	3

**Total credits 60-61**

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

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## SAMPLE PART-TIME CURRICULUM OPTION

Term		9 credits
10102101	Intro to Business ☑	3
10106106	Quality Customer Service	3
10801195	Written Communication ☑ -or-	
10801136	English Composition 1 ☑	3

Term		9 credits
10103106	Microsoft Office Introduction ☑	3
10104102	Marketing Principles ☑	3
10801198	Speech ☑ -or-	
10801196	Oral/Interpersonal Communication ☑	3

Term		6 credits
10102231	Business Networking	1
10109101	Exploring Hospitality	3
10109160	Hospitality Internship ☑	2

Term		8 credits
10102230	Business Communities	1
10109110	Room Operations Division	3
10316112	Sanitation for Foodservice Operations ☑	1
10809172	Introduction to Diversity Studies	3

Term		6 credits
10109134	Cost Control-Revenue Management	3
10109161	Event Planning and Management	3

Term		9-10 credits
10109107	Hospitality Law and Liability	3
10804107	College Mathematics ☑	3
	-or-	
10804118	Intermediate Algebra with Applications ☑	4
	-or-	
10804189	Introductory Statistics ☑	3
10196191	Supervision	3

Term		7 credits
10102232	Entrepreneurial Foundations	1
10809198	Intro to Psychology ☑	3
10196192	Managing for Quality	3

Term		6 credits
10104107	Social Media Marketing	3
10809103	Think Critically & Creatively ☑	3

**Total credits 60-61**

## MULTIPLE MEASURES

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

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

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**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Business Communities

**10102230 ..... 1 credit**

This course provides students with a comprehensive understanding of how different business communities operate, how they contribute to economic ecosystems, and how learners can participate effectively. This course will explore the dynamics, structures, and strategies involved in various professional associations, including local, global, industry-specific, and online communities.

## Business Networking

**10102231..... 1 credit**

This course will equip students with the knowledge, strategies, and practical techniques to build, nurture, and leverage professional relationships for personal and organizational success. Through a combination of classroom instruction, interactive exercises, and simulated practice, this course will empower students to enhance their networking abilities, expand their professional circles, and create valuable connections.

## College Mathematics ☑

**10804107 ..... 3 credits**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better*

## Cost Control-Revenue Management

**109134 ..... 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.

## English Composition 1 ☑

**801136 ..... 3 credits**

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

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

## Entrepreneurial Foundations

**10102232..... 1 credit**

Learners study entrepreneurial practices by exploring components of a startup business plan. 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.

## Event Planning and Management

**10109161..... 3 credits**

Provides comprehensive coverage of the convention/meetings industry with an in-depth review on how to successfully sell to groups and how to service the business before, during and after the sale. A review of changing customer demographics and the increasing influence of meeting planners on all hospitality businesses is researched as well.

## Exploring Hospitality

**10109101..... 3 credits**

Introduces students to the broad field of hospitality management. Typical career areas include foodservice, lodging, travel/tourism, and recreation. The course will explore the industry from historical to contemporary career opportunities.

## Hospitality Internship ☑

**10109160 ..... 2 credits**

This course is designed to give the student on-the-job work experience in the hospitality industry. Integrating the theories and techniques learned in previous courses along with specific off-campus occupational experiences allows students to gain a real-world perspective of a segment in the hospitality industry of their choosing. The student will complete academic hours related to the competencies of the course reflecting on their experiential learning. This work will provide resume and job seeking skills, develop a network of contacts, and cultivate career readiness.

## 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.

# COURSE DESCRIPTIONS

## **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 2.6 and MMM\_1 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Pre-Algebra 10834109 with a "C" or better*

## **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.

## **Introduction to Diversity Studies**

**809172** ..... **3 credits**

This course introduces the study of diversity from a local to a global perspective using a holistic, interdisciplinary approach that encourages exploration and prepares students to work in a diverse environment. The course introduces basic diversity concepts, examines the impact of bias and power differentials among groups, explores the use of culturally responsive communication strategies, and compares forces that shape diversity in an international context.

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

## **Introduction to Psychology** ☑

**809198** ..... **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Introductory Statistics** ☑

**804189** ..... **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 2.6 and MMM\_2 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better*

## **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. This course prepares students for the Associate level MOS Certification exams for Word, Excel, PowerPoint, and Outlook. Students should possess basic keyboarding, mouse, and Windows 10 skills. Students may develop these skills in the Academic Learning Center 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **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.

# COURSE DESCRIPTIONS

## Sanitation for Foodservice Operations

**10316112 ..... 1 credits**

Students examine the causes of food-borne illness and apply techniques for preparing, storing, and serving hot and cold foods from a ServSafe® Certified Instructor/Proctor. Students also examine the role of management and workers related to sanitation regulations and standards. The ServSafe® certification test is administered in this course and students will need to hold this valid certificate for graduation and employment in the culinary industry.

## 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.

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

## 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 and Creatively ☒

**10809103 .....3 credits**

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

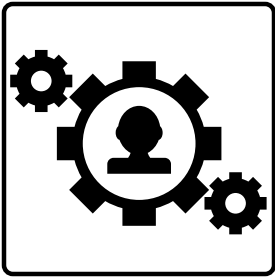
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# INDUSTRIAL MECHANICAL TECHNICIAN

**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 mechanical and electrical 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, automation, and many other topics. The program emphasizes safety in the workplace and includes many hands-on and interactive classroom experiences and lab/shop activities.

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

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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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# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### INDUSTRIAL MECHANICAL TECHNICIAN

Associate in Applied Science (AAS) • 60 Credits

#### Start Your Career

- Industrial Machinery Mechanic
- Maintenance Technician
- Predictive Maintenance (PM) Technician
- Apprenticeship

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Platteville, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Advanced Manufacturing Technology
- Manufacturing Operations Management
- Metal Fabrication
- Precision Machining Technician
- Stainless Steel Welding
- Welding

### APPRENTICESHIP OPPORTUNITIES

- Maintenance Technician Apprenticeship
- Millwright/Maintenance Mechanic Apprenticeship





## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10462102	Bearings and Lubrication	2
10462110	Material Handling	2
10462132	Machine Shop Fundamentals	3
10605105	Electrical Circuits I	3
10801136	English Composition 1	3
10804107	College Math	3
Term		15 credits
10462107	Industrial Safety	2
10462122	Preventive, Predictive, and RCM	2
10462133	Electric Controls for Industrial Automation	3
10623106	Introduction to AutoCAD	1
10623114	Intro to Inventor	1
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
10809103	Think Critically and Creatively	3
Term		16 credits
10462104	Fluid Process Systems	3
10462106	Mechanical Power Transmission	3
10605117	Automation 1 - Beginning PLC	3
10462131	Industrial Electric Power Applications	2
10809198	Intro to Psychology <b>-or-</b>	
10809188	Developmental Psychology	3
31442320	Welding Foundations 1	1
31442321	Welding Foundations 2	1
Term		13 credits
10457119	Fabrication Fundamentals 1	1
10457120	Fabrication Fundamentals 2	1
10462120	Industrial Hydraulics & Pneumatics	3
10462134	Industrial Mechanical Capstone	2
10605118	Automation 2 - Advanced PLC	3
10809166	Intro to Ethics: Theory & Application	3
<b>Total credits 60</b>		

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

### Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		8 credits
10462110	Material Handling	2
10462132	Machine Shop Fundamentals	3
10804107	College Math	3
Term		6 credits
10462107	Industrial Safety	2
10462122	Preventive, Predictive, and RCM	2
10623106	Introduction to AutoCAD	1
10623114	Intro to Inventor	1
Term		8 credits
10462102	Bearings and Lubrication	2
10605105	Electrical Circuits I	3
10801136	English Composition 1	3
Term		6 credits
10462133	Electric Controls for Industrial Automation	3
10809103	Think Critically and Creatively	3
Term		10 credits
10462106	Mechanical Power Transmission	3
10462131	Industrial Electric Power Applications	2
10605117	Automation 1 - Beginning PLC	3
31442320	Welding Foundations 1	1
31442321	Welding Foundations 2	1
Term		8 credits
10457119	Fabrication Fundamentals 1	1
10457120	Fabrication Fundamentals 2	1
10809166	Intro to Ethics: Theory & Application	3
10801196	Oral/Interpersonal Communication <b>-or-</b>	
10801198	Speech	3
Term		6 credits
10462104	Fluid Process Systems	3
10809198	Intro to Psychology <b>-or-</b>	
10809188	Developmental Psychology	3
Term		8 credits
10462120	Industrial Hydraulics & Pneumatics	3
10462134	Industrial Mechanical Capstone	2
10605118	Automation 2 - Advanced PLC	3
<b>Total credits 60</b>		

## MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## 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*

## Bearings and Lubrication

**10462102 .....2 credits**

Students are presented with information pertaining to the basic functions of bearing surfaces, bearing inspections, analysis of bearing failures and the importance of preventative maintenance.

## College Math

**10804107 .....3 credits**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## 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*

## Electrical Circuits I

**10605105 .....3 credits**

The study of Ohm's Law and its application to D.C. circuits. Major topics include: Ohm's Law, series circuits, parallel circuits, combination circuits, Kirchhoff's Laws, and power relationships.

*Corequisite: Intermediate Algebra with Applications 10804118*

## English Composition I

**10801136 .....3 credits**

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

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

## 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.

# COURSE DESCRIPTIONS

## 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 Mechanical Capstone

**10462134.....2 credits**

This course is designed for students near the end of their program to practice using industry-standard processes, documentation practices, and structures through approved projects.

## 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.

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Introduction 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.

## 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 2.6 and MMM\_1 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Pre-Algebra 10834109 with a "C" or better*

## 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.

# COURSE DESCRIPTIONS

## Oral/Interpersonal Communication ☑

**10801196 .....3 credits**

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

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

## Preventive, Predictive, and RCM ☑

**10462122 .....2 credits**

Preventive, Predictive, and RCM (Reliability Centered Maintenance) is 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. Includes informative, persuasive, and occasion speech presentations.

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

## Think Critically and Creatively ☑

**10809103 .....3 credits**

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

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

## Welding Foundations 1

**31442320 .....1 credit**

An introductory welding course focusing on FCAW, GMAW and oxy-fuel cutting. Lecture and lab activities are designed to emphasize safe work habits.

## Welding Foundations 2

**31442321 .....1 credit**

An introductory welding course focusing on GTAW, SMAW and plasma cutting processes. Lecture and lab activities are designed to emphasize safe work habits.





# IT CYBERSECURITY SPECIALIST

**Associate in Applied Science (AAS)**  
**Program Code: 10-151-2**  
**Total Credits: 60**

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.

Mid-State's IT Cybersecurity Specialist program is validated as a Program of Study by the National Security Agency (NSA).

**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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RETURNING ADULT

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- National/Standardized Exams
- Transfer Credit
- Work and Life Experience

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

## CERTIFICATE

### COMMUNICATION ESSENTIALS

Certificate • 9 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## TECHNICAL DIPLOMA

### IT USER SUPPORT TECHNICIAN

Technical Diploma • 24 Credits

#### Start Your Career

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

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### IT CYBERSECURITY SPECIALIST

Associate in Applied Science (AAS) • 60 Credits

#### Start Your Career

- Computer Security Specialist
- Information Security Analyst
- Security Operations Center (SOC) Analyst

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- IT Network Specialist
- IT Software Developer



## SAMPLE FULL-TIME CURRICULUM OPTION

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

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

Term		15 credits
10150112	Networking III	3
10151111	Information Security 2	3
10151160	Ethical Hacking	3
10809103	Think Critically & Creatively	3
10809198	Intro to Psychology	3

Term		15 credits
10151141	IT-Security Internship	3
10151161	IT Security Capstone	3
10151162	Secure Software Applications	3
10801195	Written Communication  -or-	
10801136	English Composition 1	3
10809166	Intro to Ethics: Theory & Application	3

**Total credits 60**

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		9 credits
10150110	Networking I	3
10154102	IT Essentials	3
10804135	Quantitative Reasoning	3

Term		9 credits
10150111	Networking II	3
10151110	Information Security 1	3
10152101	Intro to Programming	3

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

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

Term		9 credits
10150112	Networking III	3
10151111	Information Security 2	3
10809103	Think Critically & Creatively	3

Term		9 credits
10151162	Secure Software Applications	3
10809166	Intro to Ethics: Theory & Application	3
10809198	Intro to Psychology	3

Term		6 credits
10151160	Ethical Hacking	3
10801195	Written Communication  -or-	
10801136	English Composition 1	3

Term		6 credits
10151112	Information Security 3	3
10151161	IT Security Capstone	3

**Total credits 60**

### MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## English Composition 1 ☑

**10801136 .....3 credits**

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

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

## 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 1 10151110*

## 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. This course aligns with the CompTIA Security+ certificate. Students can take this certification exam after completing this course.

*Corequisite: Networking 1 10150110*

## Information Security 2

**10151111 .....3 credits**

Introduces students to 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; Corequisite: Networking III 10150112*

## Information Security 3

**10151112 .....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 10151111*

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to Programming ☑

**10152101 .....3 credits**

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

## Intro to Psychology ☑

**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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## IT Essentials ☑

**10154102 .....3 credits**

An introduction course that aligns with the CompTIA A+ certification. This class is designed to teach students how to build, configure, secure, network, and troubleshoot PCs.

## 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 10151111; Corequisite: Information Security 3 10151112*

## Linux

**10151105 .....3 credits**

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

## Network Server Scripting

**10150165 .....3 credits**

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

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

# COURSE DESCRIPTIONS

## Networking I

**10150110.....3 credits**

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

## Networking II

**10150111.....3 credits**

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

*Prerequisites: Networking I 10150110 and IT Essentials 10154102*

## Networking III

**10150112.....3 credits**

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

*Prerequisite: Networking II 10150111*

## Oral/Interpersonal Communication

**10801196.....3 credits**

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

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

## Quantitative Reasoning

**10804135.....3 credits**

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

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better*

## Secure Software Applications

**10151162.....3 credits**

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

*Prerequisite: Intro to Programming 10152101*

## Server Administration-Beginning

**10150120.....3 credits**

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

*Prerequisite: IT Essentials 10154102; Corequisite: Linux 10151105*

## Speech

**10801198.....3 credits**

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

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

# COURSE DESCRIPTIONS

## Think Critically & Creatively

**10809103 .....3 credits**

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

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

## Written Communication

**10801195 .....3 credits**

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

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





# IT NETWORK SPECIALIST

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

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

**Estimated tuition and fees:** [mstc.edu/programcosts](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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1001 Centerpoint Drive  
Stevens Point, WI 54481

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

# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## CERTIFICATE

### COMMUNICATION ESSENTIALS

Certificate • 9 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## TECHNICAL DIPLOMA

### IT USER SUPPORT TECHNICIAN

Technical Diploma • 24 Credits

#### Start Your Career

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

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### IT NETWORK SPECIALIST

Associate in Applied Science (AAS) • 60 Credits

#### Start Your Career

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

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- IT Cybersecurity Specialist
- IT Software Developer



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		12 credits
10150110	Networking I	3
10151105	Linux	3
10152101	Intro to Programming	3
10154102	IT Essentials	3
Term		18 credits
10150111	Networking II	3
10150120	Server Administration-Beginning	3
10150165	Network Server Scripting	3
10151110	Information Security 1	3
10801198	Speech  -or-	
10801196	Oral/Interpersonal Communication	3
10804135	Quantitative Reasoning	3
Term		15 credits
10150112	Networking III	3
10150121	Server Administration-Intermediate	3
10150130	Virtualization	3
10809103	Think Critically & Creatively	3
10801195	Written Communication  -or-	
10801136	English Composition 1	3
Term		15 credits
10150142	Information Technology Internship -or-	
10151162	Secure Software Applications	3
10150113	Networking IV	3
10150161	Advanced Networking Projects	3
10809166	Intro to Ethics: Theory & Application	3
10809198	Intro to Psychology	3
<b>Total Credits 60</b>		

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		9 credits
10154102	IT Essentials	3
10150110	Networking I	3
10152101	Intro to Programming	3
Term		9 credits
10150111	Networking II	3
10151110	Information Security 1	3
10804135	Quantitative Reasoning	3
Term		6 credits
10151105	Linux	3
10801198	Speech  -or-	
10801196	Oral/Interpersonal Communication	3
Term		6 credits
10150120	Server Administration-Beginning	3
10150165	Network Server Scripting	3
Term		9 credits
10150112	Networking III	3
10150121	Server Administration-Intermediate	3
10809103	Think Critically & Creatively	3
Term		9 credits
10150142	Information Technology Internship -or-	
10151162	Secure Software Applications	3
10801195	Written Communication  -or-	
10801136	English Composition 1	3
10809166	Intro to Ethics: Theory & Application	3
Term		6 credits
10150130	Virtualization	3
10809198	Intro to Psychology	3
Term		6 credits
10150113	Networking IV	3
10150161	Advanced Networking Projects	3
<b>Total Credits 60</b>		

### MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Advanced Networking Projects

**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: Networking III 10150112 and Virtualization 10150130*

## English Composition 1

**10801136 .....3 credits**

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

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

## Information Security 1

**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. This course aligns with the CompTIA Security+ certificate. Students can take this certification exam after completing this course.

*Corequisite: Networking 1 10150110*

## Information Technology Internship

**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. Students are responsible for securing placement at their own internship site prior to registering for this course.

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to Programming

**10152101 .....3 credits**

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

## Intro to Psychology

**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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Introductory Statistics

**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 2.6 and MMM\_2 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better*

## IT Essentials

**10154102 .....3 credits**

An introduction course that aligns with the CompTIA A+ certification. This class is designed to teach students how to build, configure, secure, network, and troubleshoot PCs.

## Linux

**10151105 .....3 credits**

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

## Network Server Scripting

**10150165 .....3 credits**

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

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

# COURSE DESCRIPTIONS

## Networking I

**10150110** .....3 credits

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

## Networking II

**10150111** .....3 credits

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

*Prerequisites: Networking I 10150110 and IT Essentials 10154102*

## Networking III

**10150112** .....3 credits

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

*Prerequisite: Networking II 10150111*

## Networking IV

**10150113** .....3 credits

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

*Prerequisites: Networking III 10150112 and Virtualization 10150130*

## Oral/Interpersonal Communication

**10801196** .....3 credits

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

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

## Quantitative Reasoning

**10804135** .....3 credits

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

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a “C” or better*

## Secure Software Applications

**10151162** .....3 credits

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

*Prerequisite: Intro to Programming 10152101*

## Server Administration-Beginning

**10150120** .....3 credits

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

*Prerequisite: IT Essentials 10154102; Corequisite: Linux 10151105*

## Server Administration-Intermediate

**10150121** .....3 credits

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. Includes informative, persuasive, and occasion speech presentations.

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



# COURSE DESCRIPTIONS

## Think Critically & Creatively ☑

**10809103 .....3 credits**

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

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

## Virtualization

**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 VCA certification. The course covers the objectives of the VCA exam but is not designed nor intended to be a “test prep” course.

*Prerequisites: Server Administration-Beginning 10150120 and Linux 10151105*

## Written Communication ☑

**10801195 .....3 credits**

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

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



# IT SOFTWARE DEVELOPER

## Associate in Applied Science (AAS) Program Code: 10-152-1 Total Credits: 60

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 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 and actual 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.

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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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## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## CERTIFICATE

### FUNDAMENTALS OF PROGRAMMING

Certificate • 9 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## ASSOCIATE OF ARTS (AA)

### IT SOFTWARE DEVELOPER

Associate in Applied Science (AAS) • 60 Credits

#### Start Your Career

- Computer Applications Engineer
- Mobile Applications Developer
- Software Developer
- Apprenticeship

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- IT Network Specialist
- IT Cybersecurity Specialist
- IT User Support Technician

### APPRENTICESHIP OPPORTUNITIES

- IT Software Developer Apprenticeship



## SAMPLE FULL-TIME CURRICULUM OPTION

<b>Term</b>		<b>15 credits</b>
10152101	Intro to Programming ☑	3
10152121	Object-Oriented Programming 1 ☑	3
10152150	Web Design 1 ☑	3
10801195	Written Communication ☑ <b>-or-</b>	
10801136	English Composition 1 ☑	3
10804135	Quantitative Reasoning ☑	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>15 credits</b>
10152155	Web Programming 1 ☑	3
10152160	Introductory Mobile Application Development	3
10152175	Software Architecture	3
10156102	SQL Development	3
10801197	Technical Reporting	3
<b>Term</b>		<b>15 credits</b>
10151162	Secure Software Applications	3
10152158	Web Programming 2	3
10152176	Application Development Capstone	3
10809166	Intro to Ethics: Theory & Application ☑	3
10809198	Intro to Psychology ☑ <b>-or-</b>	
10809188	Developmental Psychology ☑	3
<b>Total credits 60</b>		

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

Please Note:

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

## 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 credits</b>
10801195	Written Communication ☑ <b>-or-</b>	
10801136	English Composition 1 ☑	3
10804135	Quantitative Reasoning ☑	3
<b>Term</b>		<b>6 credits</b>
10152159	User Experience Design	3
10801196	Oral/Interpersonal Communication ☑ <b>-or-</b>	
10801198	Speech ☑	3
<b>Term</b>		<b>9 credits</b>
10152155	Web Programming 1 ☑	3
10152160	Introductory Mobile Application Development	3
10801197	Technical Reporting	3
<b>Term</b>		<b>9 credits</b>
10151162	Secure Software Applications	3
10152158	Web Programming 2	3
10809166	Intro to Ethics: Theory & Application ☑	3
<b>Term</b>		<b>6 credits</b>
10152175	Software Architecture	3
10156102	SQL Development	3
<b>Term</b>		<b>6 credits</b>
10152176	Application Development Capstone	3
10809198	Intro to Psychology ☑ <b>-or-</b>	
10809188	Developmental Psychology ☑	3
<b>Total credits 60</b>		

### MULTIPLE MEASURES

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

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

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Application Development Capstone

**10152176.....3 credits**

Learners form self-directed Agile teams working with a client where each team will be responsible for identifying, designing, and implementing a software application. Teams will manage their projects, communicate project status, adapt to changing requirements, and overcome technical challenges. Students will build their application leveraging Agile project management software to manage their project. Additional topics: Agile software development methodology and team-based communication.

*Prerequisites: Software Architecture 10152175, Web Programming 1 10152155, SQL Development 10156102, and Introductory Mobile Application 10152160.*

## Collaborative Application Development

**10152174.....3 credits**

Introduces the Agile software development methodology and applies it to managing software development projects using the Atlassian suite of products. Students will work in small teams developing web-based applications. Additional topics: gathering requirements, team rules, peer evaluations, code reviews, pair programming, stakeholder and team communication, project management, version control, unit testing, licensing, and build automation.

*Prerequisites: Web Design 1 10152150, Intro to Programming 10152101 Corequisite: Oral/Interpersonal Communication 10801196.*

## College Mathematics

**10804107.....3 credits**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better*

## 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).

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## English Composition 1

**10801136.....3 credits**

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

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

## 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 2.6 and MMM\_1 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Pre-Algebra 10834109 with a "C" or better*

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to Programming

**10152101.....3 credits**

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



# COURSE DESCRIPTIONS

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English

## **Introductory Mobile Application Development**

**10152160** .....3 credits

Provides instruction in developing software applications for mobile devices using the Microsoft Visual Studio and Maui.

*Prerequisite:* Object-Oriented Programming 2 10152122, 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 2.6 and MMM\_2 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better

## **Object-Oriented Programming 1**

**10152121**.....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

## **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 design principles and patterns. Focus is put on SOLID principles of OO development, and coding to abstraction, utilizing Factory, Strategy, and Observer patterns. Additional topics include delegates, iterators, and data structures.

*Prerequisite:* Object-Oriented Programming 1 10152121

## **Oral/Interpersonal Communication**

**10801196** .....3 credits

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

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

## **Quantitative Reasoning**

**10804135**.....3 credits

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

*Prerequisite:* High School GPA of 2.6 and MMM\_1 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better

## **Secure Software Applications**

**10151162** .....3 credits

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

*Prerequisite:* Intro to Programming 10152101

## **Software Architecture**

**10152175** .....3 credits

Introduces N-tier software architecture where learners work in Agile teams to create and deploy ASP.NET applications comprised of data access, business, and presentation layers using MVC architecture. The application will access data from a relational database. Additional topics include: Agile project management, team communication and conflict management, requirements gathering, version control, authentication, authorization, and consuming web services.

*Prerequisites:* Collaborative Application Development 10152174, Object-Oriented Programming 2 10152122, Database Concepts and Design 10152156.

## **Speech**

**10801198** .....3 credits

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

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

# COURSE DESCRIPTIONS

## 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, Introduction to Programming 10152101 Corequisite College Math 10804107*

## 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 1 10801136 or Written Communication 10801195 with a "C" or better*

## 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.

*Corequisite: 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 inclusive design, copyright considerations, text editors, image optimization, FTP utilities, and browser tools.

## Web Programming 1

**10152155 .....3 credits**

Provides instruction in php to teach students how to develop full-stack web applications. Students will work with the following languages/technologies: PHP, HTML, CSS, JavaScript, jQuery, SQL, and bootstrap. Additional topics include Object-Oriented and MVC.

*Prerequisites: Database Concepts and Design 10156101, Collaborative Applications Development 10152174, and Object Oriented Programming 1 10152121*

## Web Programming 2

**10152158 .....3 credits**

Students will learn how to develop applications using Angular and NOSQL using Mongo. Additional topics include type script, templates, binding, form controls, and other front-end development frameworks.

*Prerequisites: Web Programming 1 10152155, Collaborative Application Development 10152174.*

## Written Communication

**10801195 .....3 credits**

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

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



# IT USER SUPPORT TECHNICIAN

## Technical Diploma Program Code: 30-154-5 Total Credits: 24

The IT User Support Technician program teaches the skills necessary to support computer users and their computers. Students will be able to manage, configure, and troubleshoot common computer hardware and software issues, configure and troubleshoot network access, and develop customer service skills. This program will cover the fundamentals of networking, security, hardware, and troubleshooting. Students will get hands-on experience with common network hardware, security tools, and common operating systems. They will also be immersed in a variety of activities including building a network from scratch, lock picking, rebuilding a desktop computer, learning scripting techniques, and interactive labs with server and client operating systems.

**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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# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## CERTIFICATE

### COMMUNICATION ESSENTIALS

Certificate • 9 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## TECHNICAL DIPLOMA

### IT USER SUPPORT TECHNICIAN

Technical Diploma • 24 Credits

#### Start Your Career

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

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### IT NETWORK SPECIALIST

Associate in Applied Science (AAS)  
60 Credits

#### Start Your Career

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

### IT CYBERSECURITY SPECIALIST

Associate in Applied Science (AAS)  
60 Credits

#### Start Your Career

- Computer Security Specialist
- Information Security Analyst
- Security Operations Center (SOC) Analyst

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- IT Network Specialist
- IT Software Developer



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		12 credits
10150110	Networking I	3
10151105	Linux	3
10154102	IT Essentials	3
10804135	Quantitative Reasoning	3
Term		12 credits
10150120	Server Administration-Beginning	3
10150165	Network Server Scripting	3
10151110	Information Security 1	3
10801196	Oral/Interpersonal Communication	3
<b>Total credits</b>		<b>24</b>

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10151105	Linux	3
10154102	IT Essentials	3
Term		6 credits
10150120	Server Administration-Beginning	3
10801196	Oral/Interpersonal Communication	3
Term		6 credits
10150110	Networking I	3
10804135	Quantitative Reasoning	3
Term		6 credits
10150165	Network Server Scripting	3
10151110	Information Security 1	3
<b>Total credits</b>		<b>24</b>

## MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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



# COURSE DESCRIPTIONS

## 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. This course aligns with the CompTIA Security+ certificate. Students can take this certification exam after completing this course.

*Corequisite: Networking 1 10150110*

## IT Essentials

**10154102 .....3 credits**

An introduction course that aligns with the CompTIA A+ certification. This class is designed to teach students how to build, configure, secure, network, and troubleshoot PCs.

## Linux

**10151105 .....3 credits**

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

## Network Server Scripting

**10150165 .....3 credits**

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

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

## Networking I

**10150110 .....3 credits**

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

## Oral/Interpersonal Communication

**10801196 .....3 credits**

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

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

## Quantitative Reasoning

**10804135 .....3 credits**

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

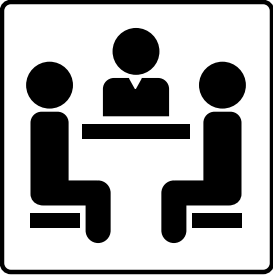
*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better*

## Server Administration-Beginning

**10150120 .....3 credits**

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

*Prerequisite: IT Essentials 10154102; Corequisite: Linux 10151105*



# LEADERSHIP DEVELOPMENT

## Associate in Applied Science (AAS) Program Code: 10-196-1 Total Credits: 61-62

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.

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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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### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## CERTIFICATE

### TEAM LEADERSHIP

Certificate • 9 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## TECHNICAL DIPLOMA

### PROJECT MANAGEMENT

Technical Diploma • 32 Credits

#### Start Your Career

- Project Manager
- Implementation Manager
- Project Leader

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### LEADERSHIP DEVELOPMENT

Associate in Applied Science (AAS) • 61-62 Credits

#### Start Your Career

- Supervisor
- Manager
- Team Leader

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Herzing University and UW-Oshkosh.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Business Management
- Customer Relationship Professional
- Entrepreneur
- Human Resources
- Human Resources Assistant
- Office Support Specialist



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10101140	Accounting 1 ☑-or-	
10102121	Finance and Budgeting ☑	3
10102231	Business Networking	1
10196189	Team Building & Problem Solving	3
10196190	Leadership Development ☑	3
10801195	Written Communication ☑ -or-	
10801136	English Composition 1 ☑	3
10801196	Oral/Interpersonal Communication ☑ -or-	
10801198	Speech ☑	3
Term		16-17 credits
10102230	Business Communities	1
10103106	Microsoft Office-Introduction ☑	3
10196152	Strategic Leadership	3
10196188	Project Management	3
10196192	Managing for Quality	3
10804107	College Mathematics ☑	3
	-or-	
10804118	Intermediate Algebra with Applications ☑	4
	-or-	
10804189	Introductory Statistics ☑	3
Term		14 credits
10102233	Negotiation Skills	1
10196135	Conflict Resolution	3
10196136	Managing Risk & Safety	3
10196151	Leadership Mentorship	1
10196191	Supervision ☑	3
10809172	Introduction to Diversity Studies ☑ -or-	
10809122	Intro to American Government ☑ -or-	
10809196	Intro to Sociology ☑	3
Term		15 credits
10196139	Workplace Innovation	3
10196150	Ethical Leadership	3
10196171	Organizational Development	3
10809166	Intro to Ethics: Theory & Application ☑	3
10809198	Intro to Psychology ☑ -or-	
10809188	Developmental Psychology ☑	3
<b>Total credits 61-62</b>		

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

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		7 credits
10102231	Business Networking	1
10196190	Leadership Development ☑	3
10801196	Oral/Interpersonal Communication ☑ -or-	
10801198	Speech ☑	3
Term		9 credits
10101140	Accounting 1 ☑-or-	
10102121	Finance and Budgeting ☑	3
10196189	Team Building & Problem Solving	3
10801195	Written Communication ☑ -or-	
10801136	English Composition 1 ☑	3
Term		7-8 credits
10102230	Business Communities	1
10196192	Managing for Quality	3
10804107	College Mathematics ☑	3
	-or-	
10804118	Intermediate Algebra with Applications ☑	4
	-or-	
10804189	Introductory Statistics ☑	3
Term		9 credits
10103106	Microsoft Office-Introduction ☑	3
10196152	Strategic Leadership	3
10196188	Project Management	3
Term		7 credits
10102233	Negotiation Skills	1
10196191	Supervision ☑	3
10809172	Introduction to Diversity Studies ☑ -or-	
10809122	Intro to American Government ☑ -or-	
10809196	Intro to Sociology ☑	3
Term		7 credits
10196135	Conflict Resolution	3
10196136	Managing Risk & Safety	3
10196151	Leadership Mentorship	1
Term		9 credits
10196150	Ethical Leadership	3
10809198	Intro to Psychology ☑ -or-	
10809188	Developmental Psychology ☑	3
10809166	Intro to Ethics: Theory & Application ☑	3
Term		6 credits
10196139	Workplace Innovation	3
10196171	Organizational Development	3
<b>Total credits 61-62</b>		

## MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Accounting 1

**10101140.....3 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 Communities

**10102230 ..... 1 credit**

This course provides students with a comprehensive understanding of how different business communities operate, how they contribute to economic ecosystems, and how learners can participate effectively. This course will explore the dynamics, structures, and strategies involved in various professional associations, including local, global, industry-specific, and online communities.

## Business Networking

**10102231..... 1 credit**

This course will equip students with the knowledge, strategies, and practical techniques to build, nurture, and leverage professional relationships for personal and organizational success. Through a combination of classroom instruction, interactive exercises, and simulated practice, this course will empower students to enhance their networking abilities, expand their professional circles, and create valuable connections.

## College Mathematics

**10804107 .....3 credits**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better*

## 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.

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## English Composition 1

**10801136 .....3 credits**

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

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

## Ethical Leadership

**10196150 .....3 credits**

This course illustrates the critical role that ethical decision-making and values-driven leadership play in guiding individuals, teams, and organizations. This course explores the principles, models, and practices that underpin ethical leadership to equip learners with the skills to navigate moral complexities with integrity and conviction. Students will take a deep dive into ethical leadership, authentic leadership, and servant leadership strategies.

## 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 2.6 and MMM\_1 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Pre-Algebra 10834109 with a "C" or better*



# COURSE DESCRIPTIONS

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to 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, social organization, and workplace issues.

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

## **Introduction to Diversity Studies** ☒

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

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

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

## **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 2.6 and MMM\_2 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better*

## **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.

## **Leadership Mentorship**

**10196151 .....1 credit**

This course explores the dynamics of mentorship, the responsibilities of both mentors and mentees, and the impact of mentorship on leadership growth and personal development. Learners in this course will participate in a facilitated mentorship experience.

## **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.

## **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. This course prepares students for the Associate level MOS Certification exams for Word, Excel, PowerPoint, and Outlook. Students should possess basic keyboarding, mouse, and Windows 11 skills. Students may develop these skills in the Academic Learning Center while concurrently enrolled in this course.

# COURSE DESCRIPTIONS

## Negotiation Skills

**10102233..... 1 credit**

This course explores the principles, strategies, and practical applications of negotiation in a variety of contexts, from business transactions to interpersonal relationships. Learners will gain the confidence and expertise required to navigate complex negotiations successfully.

## 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 Development

**10196171 .....3 credits**

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

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

## Project Management

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

Applies skills and tools necessary to design, implement, and evaluate formal projects. Each learner will examine the role of project management, create a project charter, define project work scope, manage project risks, and develop a network diagram, project schedule, and project budget.

*Prerequisite: Nine core credits from a 101, 102, 103, 109, 196, or 623 program code.*

## Speech ☑

**10801198 .....3 credits**

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

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

## Strategic Leadership

**10196152.....3 credits**

This course provides students with a comprehensive understanding of strategic thinking, decision-making, and the skills necessary to lead organizations toward long-term success. This course explores strategic planning, change management, strategic directions, organizational effectiveness metrics and building and sustaining organizational trust.

## 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.

## 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.

*Prerequisite: Nine core credits from a 101, 102, 103, 109, or 623 program code*

## Written Communication ☑

**10801195 .....3 credits**

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

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



# MANUFACTURING OPERATIONS MANAGEMENT

**Associate in Applied Science (AAS)**  
**Program Code: 10-196-5**  
**Total Credits: 60**

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:

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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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 • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### MANUFACTURING OPERATIONS MANAGEMENT

Associate in Applied Science (AAS) • 60 Credits

#### Start Your Career

- Manufacturing Supervisor
- Production Manager
- Quality Assurance Supervisor

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

UW-Oshkosh and UW-Platteville.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Advanced Manufacturing Technology
- Industrial Mechanical Technician
- Metal Fabrication
- Precision Machining Technician
- Stainless Steel Welding
- Welding



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
10196189	Team Building & Problem Solving	3
10623126	Manufacturing Supervision <b>-or-</b>	
10196191	Supervision ☑	3
10462107	Industrial Safety ☑	2
10623114	Intro to Inventor	1
10801136	English Composition 1 ☑	3
10804107	College Mathematics ☑ <b>-or-</b>	
10804189	Introductory Statistics ☑	3
Term		15 credits
10102110	Employment Law	3
10623124	Budgets & Economic Impact for Manufacturing <b>-or-</b>	
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 <b>-or-</b>	
10623168	Manufacturing Operations Capstone	3
10809198	Intro to Psychology ☑ <b>-or-</b>	
10809188	Developmental 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</b>		

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10462107	Industrial Safety ☑	2
10623114	Intro to Inventor	1
10801136	English Composition 1 ☑	3
Term		6 credits
10103123	Excel-Beginning ☑	1
10804107	College Mathematics ☑ <b>-or-</b>	
10804189	Introductory Statistics ☑	3
10623112	Manufacturing Practices	2
Term		9 credits
10196189	Team Building & Problem Solving	3
10623126	Manufacturing Supervision <b>-or-</b>	
10196191	Supervision ☑	3
10809166	Intro to Ethics: Theory & Application ☑	3
Term		9 credits
10102110	Employment Law	3
10623124	Budgets & Economic Impact for Manufacturing <b>-or-</b>	
10102121	Finance and Budgeting ☑	3
10801196	Oral/Interpersonal Communication ☑ <b>-or-</b>	
10801198	Speech ☑	3
Term		9 credits
10196190	Leadership Development ☑	3
10196193	Human Resource Management	3
10809198	Intro to Psychology ☑ <b>-or-</b>	
10809188	Developmental Psychology ☑	3
Term		6 credits
10196192	Managing for Quality	3
10809172	Introduction to Diversity Studies ☑	3
Term		6 credits
10605117	Automation 1 - Beginning PLC ☑	3
10623169	Manufacturing Operations Management Internship <b>-or-</b>	
10623168	Manufacturing Operations Capstone	3
Term		9 credits
10102131	Entrepreneurial Management	3
10623132	Project Management for Manufacturing	3
10623171	Lean Six Sigma	3
<b>Total credits 60</b>		

### MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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



# COURSE DESCRIPTIONS

## 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.

## Budgets & Economic Impact for Manufacturing

**10623124 .....3 credits**

Students will study the language of budgets and fiscal management as it relates to the manufacturing industry. Provides an overview of the use and analysis of financial statements. Students will study the impact of current and historical economics and how they have a role in successful business planning.

## College Mathematics ☑

**10804107 .....3 credits**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## 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**

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

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

## 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.

# 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.

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Introduction to Diversity Studies ☑

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

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

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

## 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 2.6 and MMM\_2 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better*

## 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 methods used in Lean Six Sigma to implement continuous improvement projects in the workplace. Concepts identified in this course cover problem solving tools, root cause analysis and project management using the DMAIC model. Learners will incorporate basic statistics to support projects and explore the Lean Six Sigma 'body of knowledge' providing skills to achieve Lean Six Sigma Green Belt certification.

## 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 Capstone

**10623168 .....3 credits**

This project-based course simulates working in a supervisory role where students build a portfolio demonstrating skills they could present to an employer when applying for supervisory or management positions.

*Prerequisites: minimum 21 credits of 623 or 196 or 462 program courses*

# COURSE DESCRIPTIONS

## **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).

## **Manufacturing Supervision 10623126.....3 credits**

Applies skills and tools necessary to perform the functions of a supervisor in a manufacturing field. Students engage in operational planning, analyze organizational structures, review the staffing process, study techniques that enhance personal and group functionality, and develop techniques to measure production and effectiveness of teams.

## **Oral/Interpersonal Communication ☑ 10801196.....3 credits**

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

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

## **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. Includes informative, persuasive, and occasion speech presentations.

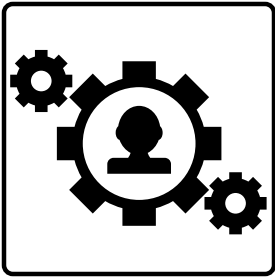
*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 253 and Writing of 262 or ACT of 21 Reading/19 English or completion of College Reading and Writing 1 10831104 with a "C" or better*

## **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.



# MECHANICAL DESIGN TECHNOLOGY

**Associate in Applied Science (AAS)**  
**Program Code: 10-606-1**  
**Total Credits: 63-64**

This program prepares graduates to work with engineers to design, prepare, develop, and test all types of machines and products. Students learn to apply knowledge of mechanical engineering technology and use 2D and 3D computer-aided design applications. They also learn about manufacturing processes, material strength, basic mechanisms, and three-dimensional modeling. You'll gain an understanding of complex systems and how parts and pieces work together. You will also learn about and use research and development (R&D) processes, such as prototyping, testing, and QA, and how these are applied in the world of manufacturing. Hands-on projects include building parts to make mechanical systems as well as first-hand experience with scanning and modeling parts, 3D printing parts, and additive manufacturing.

**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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# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### MECHANICAL DESIGN TECHNOLOGY

Associate in Applied Science (AAS) • 63-64 Credits

#### Start Your Career

- Mechanical Design Technician
- Product Designer
- CAD Technician

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Automation & Instrumentation Technology
- Civil Engineering Technology-Highway Technician

### APPRENTICESHIP OPPORTUNITIES

- Maintenance Technician Apprenticeship
- Millwright/Maintenance Mechanic Apprenticeship





## SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
10420101	Manufacturing Processes - Machining	2
10606163	Materials of Industry	2
10606164	Technical Detailing	2
10623106	Introduction to AutoCAD	1
10623114	Intro to Inventor	1
10801136	English Composition 1 ☑	3
10804118	Intermediate Algebra with Applications ☑	4

Term		17 credits
10457119	Fabrication Fundamentals 1 ☑	1
10457120	Fabrication Fundamentals 2 ☑	1
10606106	Intermediate AutoCAD	2
10606114	Machine Design 1	2
10606131	Strengths of Materials	3
10606145	Applied Mechanics	2
10804196	Trigonometry with Applications	3
10809166	Intro to Ethics: Theory & Application ☑ -or-	
10809172	Introduction to Diversity Studies ☑	3

Term		17-18 credits
10606115	Machine Design 2	3
10606117	Designing for Manufacturability	3
10606119	Mechanisms	3
10606165	Intro to Solidworks	1
10623176	Quality Assurance	1
10801196	Oral/Interpersonal Communication ☑ -or-	
10801198	Speech ☑	3
10806143	College Physics 1	3
	-or-	
10806154	General Physics 1 ☑	4

Term		14 credits
10462120	Industrial Hydraulics & Pneumatics	3
10606113	Tool and Fixture Design	2
10606166	Intermediate Solidworks	1
10623171	Lean Six Sigma	3
10809198	Introduction to Psychology ☑ -or-	
10809188	Developmental Psychology ☑	3
32420325	Inspection with Geometric Dimensioning	2

**Total credits 63-64**

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		10 credits
10420101	Manufacturing Processes - Machining	2
10606163	Materials of Industry	2
10623106	Introduction to AutoCAD	1
10623114	Intro to Inventor	1
10804118	Intermediate Algebra with Applications ☑	4

Term		10-11 credits
10457119	Fabrication Fundamentals 1 ☑	1
10457120	Fabrication Fundamentals 2 ☑	1
10606106	Intermediate AutoCAD	2
10804196	Trigonometry with Applications	3
10806143	College Physics 1	3
	-or-	
10806154	General Physics 1 ☑	4

Term		8 credits
10606164	Technical Detailing	2
10801136	English Composition 1 ☑	3
10809166	Intro to Ethics: Theory & Application ☑ -or-	
10809172	Introduction to Diversity Studies ☑	3

Term		7 credits
10606114	Machine Design 1	2
10606131	Strengths of Materials	3
10606145	Applied Mechanics	2

Term		6 credits
10606115	Machine Design 2	3
10801196	Oral/Interpersonal Communication ☑ -or-	
10801198	Speech ☑	3

Term		8 credits
10462120	Industrial Hydraulics & Pneumatics	3
10809198	Introduction to Psychology ☑ -or-	
10809188	Developmental Psychology ☑	3
32420325	Inspection with Geometric Dimensioning	2

Term		8 credits
10606117	Designing for Manufacturability	3
10606119	Mechanisms	3
10606165	Intro to Solidworks	1
10623176	Quality Assurance	1

Term		6 credits
10606113	Tool and Fixture Design	2
10606166	Intermediate Solidworks	1
10623171	Lean Six Sigma	3

**Total credits 63-64**

## MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Applied Mechanics

**10606145 .....2 credits**

Learners develop a thorough understanding of statics and mechanics principles found in mechanical design. Learners will apply mechanics principles in various assignments and lab activities.

## 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*

## Designing for Manufacturability

**10606117 .....3 credits**

Utilize industry accepted methods for the design and development of customer focused products. Emphasis is placed on team building and the application of industry practices for the efficient and cost-effective design, development and production of products. The learner will incorporate design considerations for specific manufacturing processes into product design. Current industry methods of product design and re-engineering will be used to complete product design projects.

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## English Composition 1

**10801136 .....3 credits**

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

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

## 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.

## General Physics 1

**10806154 .....4 credits**

Presents the applications and theory of basic physics principles. This course emphasizes problem solving, laboratory investigation, and applications. Topics include unit conversion and analysis, vectors, translational and rotational kinematics, translational and rotational dynamics, heat and temperature, and harmonic motion and waves.

*Corequisite: Trigonometry with Applications 10804196*

## 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*

## 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.

# COURSE DESCRIPTIONS

## 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 2.6 and MMM\_1 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Pre-Algebra 10834109 with a "C" or better*

## Intermediate AutoCAD

**10606106 ..... 2 credits**

Applies intermediate to advanced AutoCAD functions and shortcuts, expanding knowledge from Technical Drafting / CAD. Explores the 3D modeling functions in AutoCAD. Applies these skills to create auxiliary views, section views and complex assemblies. The learner will create a variety of working drawings using the mechanical drawing skills obtained in the prerequisite courses and the AutoCAD software to increase skills and efficiency.

## Intermediate Solidworks

**10606166 ..... 1 credit**

Introduces the learner to intermediate SolidWorks commands to produce 3- dimensional parts, assemblies and engineering drawings. The learner will utilize and practice their existing beginner level commands and skills while mastering intermediate level skills with an emphasis on mechanical engineering drafting and design.

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to 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 Solidworks

**10606165 ..... 1 credit**

Introduces the learner to basic SolidWorks commands to produce 3-dimentional parts, assemblies and engineering drawings. The learner will master beginner level commands and have a thorough understanding of the basic operation of the software.

## Introduction 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.

## Introduction to Diversity Studies ☑

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

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

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

## Introduction 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Lean Six Sigma

**10623171..... 1 credit**

Learners will examine methods used in Lean Six Sigma to implement continuous improvement projects in the workplace. Concepts identified in this course cover problem solving tools, root cause analysis and project management using the DMAIC model. Learners will incorporate basic statistics to support projects and explore the Lean Six Sigma 'body of knowledge' providing skills to achieve Lean Six Sigma Green Belt certification.

## Machine Design 1

**10606115 ..... 2 credits**

Emphasizes horsepower, torque and speed regarding machine design requirements. The learner will be capable of proper selection of commercially available power transmission chain and belt drives, couplings, clutches, brakes and gear reducers, as well as the selection of electric motors and small two and four cycle gasoline engines.

# COURSE DESCRIPTIONS

## Machine Design 2

**10606115 .....3 credits**

Incorporates the concepts learned in Strengths of Materials and applies them to 3-dimensional applications. The learner will master the basic concepts of fatigue strength, the use of stress concentration factors, de-rating factors and factors of safety in order to compare design loads to material properties of objects in their actual working environment. The learner will understand all aspects of shaft design and will be able to properly account for all considerations when designing common machine components.

*Prerequisite: Strengths of Materials 10606131*

## Manufacturing Processes - Machining

**10420101 .....2 credits**

Learners will be introduced to manufacturing methods and the progression a part follows from raw material to finished product following supplied drawings. Learners will practice techniques in standard machining processes, methods, and procedures to safely machine materials using manufacturing equipment including manual milling machines and manual lathes.

## Materials of Industry

**10606163 .....2 credits**

Learners are involved in the examination of manufacturing materials related to the ultimate design decision involved in part and product design. Students will learn the principles and theory of material selection, properties of materials, structures of materials and specific materials and their function in product application.

## Mechanisms

**10606119 .....3 credits**

Analyzes existing mechanisms and their motion characteristics with application to the design of machines. Four bar linkages, slider cranks, cams, gears and other typical mechanisms are examined. The effects that displacement, velocity and acceleration have on mechanisms will be studied.

## Oral/Interpersonal Communication ☑

**10801196 .....3 credits**

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

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

## Quality Assurance

**10623176 .....1 credit**

Analyzes the philosophies and strategies the American industry has been focusing on to improve the quality of their products and services. The learner will explore their personal philosophy on quality, the cost of quality, total quality management, and nonconforming products and materials.

## Speech ☑

**10801198 .....3 credits**

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

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

## Strengths of Materials

**10606131 .....3 credits**

Examines how forces affect machine members and structural elements. The learner will calculate stress and strain, analyze connections and evaluate beams and columns. The learner will use these calculations to determine if a given design will perform or fail.

## Technical Detailing

**10606164 .....2 credits**

Expands basic knowledge and skill development of mechanical drawing. Emphasis is placed on fits and tolerances, geometric and positional dimensioning and tolerancing, assembly and detail drawings and parts lists.

## Tool and Fixture Design

**10606113 .....2 credits**

Develops an in-depth understanding of production systems control and planning. The learner will acquire the skills necessary for the design and creation of engineering drawings of production tools and work holder devices such as jigs and fixtures.

## 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: ACT Math score of 22 or Intermediate Algebra with Applications 10804118 with a "C" or better*



# MEDICAL ASSISTANT

## Technical Diploma Program Code: 31-509-1 Total Credits: 29-31

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)

### 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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Where: \_\_\_\_\_  
When: \_\_\_\_\_  
With: \_\_\_\_\_
- Official Transcripts  
Mid-State Technical College  
Student Services Assistant  
1001 Centerpoint Drive  
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- Criminal Background Statement of  
Understanding and Release of  
Information Form
- Other: \_\_\_\_\_  
\_\_\_\_\_



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COLLEGE TRANSFER

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- Certifications and Licenses
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## CERTIFICATE

### HEALTHCARE FOUNDATIONS

Certificate • 6 Credits

### REGISTERED NURSE REFRESHER SERIES

Certificate • 8 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## TECHNICAL DIPLOMA

### MEDICAL ASSISTANT

Technical Diploma • 29-31 Credits

#### Start Your Career

- Appointment Clerk (Medical/Dental)
- Medical Assistant
- Medical Records Clerk

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Dental Assistant
- Health & Wellness Promotion
- Health Information Management
- Medical Coder
- Nursing
- Nursing Assistant
- Phlebotomy Technician
- Respiratory Therapy
- Sterile Processing Technician
- Surgical Technology



## PROGRAM OUTCOMES

Employers will expect you, as a Medical Assistant graduate, to be able to:

- Perform medical office administrative functions.
- Provide patient care in accordance with regulations, policies, laws, and patient rights.
- Perform medical laboratory procedures.
- Demonstrate professionalism in a health care setting.
- Demonstrate safety and emergency practices in a healthcare setting.

## 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 the Advanced Coding course.

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Per CAAHEP Standard II.A, the goal of this program is “to prepare Medical Assistants who are competent in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains to enter the profession.” This program is accredited by the Commission on Accreditation of Allied Health Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Medical Assisting Education Review Board (MAERB).

Graduates are eligible to take the national certification exams offered by the American Association of Medical Assistants (AAMA) and American Medical Technologists (AMT).



### Commission on Accreditation of Allied Health Education Programs

9355 113th St. N, #7709, Seminole, FL 33775  
Phone: 727.210.2350 • [www.caahep.org](http://www.caahep.org)

## ADDITIONAL ENTRY CRITERIA

To apply to the Medical Assistant 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 medical assistant is available at [mstc.edu/programs/medical-assistant](http://mstc.edu/programs/medical-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 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

### ADDITIONAL COURSES AS NEEDED

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

#### College Reading and Writing 1

**10831104** .....**3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

#### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term	15-17 credits
31801368 Workplace Communication	1
31509301 Medical Assistant Administrative Procedures	2
31509302 Human Body in Health & Disease	3
<b>-or-</b>	
10806177 General Anatomy & Physiology ☑	4
31509303 Medical Assistant Laboratory Procedures 1	2
31509304 Medical Assistant Clinical Procedures 1	4
31509318 Technology Foundations for Medical Assistants	1
31509320 Medical Terminology for Medical Assistants	2
<b>-or-</b>	
10501101 Medical Terminology ☑	3
Term	14 credits
31509305 Medical Assistant Laboratory Procedures 2	2
31509306 Medical Assistant Clinical Procedures 2	3
31509307 Medical Office Insurance and Finance	2
31509308 Pharmacology for Allied Health ☑	2
31509309 Medical Law, Ethics, and Professionalism	2
31509310 Medical Assistant Practicum	3
<b>Total credits 29-31</b>	

## SAMPLE PART-TIME CURRICULUM OPTION

Term	5-7 credits
31509302 Human Body in Health & Disease	3
<b>-or-</b>	
10806177 General Anatomy & Physiology ☑	4
31509320 Medical Terminology for Medical Assistants	2
<b>-or-</b>	
10501101 Medical Terminology ☑	3
Term	4 credits
31509308 Pharmacology for Allied Health ☑	2
31509318 Technology Foundations for Medical Assistants	1
31801368 Workplace Communication	1
Term	10 credits
31509301 Medical Assistant Administrative Procedures	2
31509303 Medical Assistant Laboratory Procedures 1	2
31509304 Medical Assistant Clinical Procedures 1	4
31509309 Medical Law, Ethics, and Professionalism	2
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
<b>Total credits 29-31</b>	

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

Please Note:

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

MULTIPLE MEASURES	
<b>Multiple Measures Writing (MMW):</b> High school GPA of 2.6 and successful completion of 2.0 credits of high school writing courses with a “C” or better	<b>Multiple Measures Reading (MMR):</b> High school GPA of 2.6 and successful completion of 2.0 credits of high school literature courses with a “C” or better
<b>Multiple Measures Math 1 (MMM_1):</b> High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a “C” or better	<b>Multiple Measures Math 2 (MMM_2):</b> High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a “C” or better
<b>Multiple Measures Science 1 (MMS_1):</b> High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a “C” or better	<b>Multiple Measures Science 2 (MMS_2):</b> High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a “C” or better

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

# COURSE DESCRIPTIONS

## **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 2.6 and MMS\_1 and MMM\_1 or Accuplacer Reading Skills of 262 and QAS of 246 or ACT Math score of 19 and Reading score of 19 or College Math 10804107 or Intermediate Algebra with Applications 10804118 with a "C" or better, or General Chemistry 10806134, or General Biology 10806114, or Human Body in Health & Disease 31509302*

## **Human Body in Health & Disease**

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

Students learn to recognize human body structure and function in health and disease states. Students explore the causes, signs, and symptoms of diseases of the major body systems as well as the diagnostic procedures, usual treatment, prognosis, and prevention of diseases commonly diagnosed and treated in the medical office setting.

## **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 for Medical Assistants 31509320, and Human Body in Health and Disease 31509302; 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**

**31509309.....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.

# COURSE DESCRIPTIONS

## 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.

## Medical Terminology for Medical Assistants

**31509320 ..... 2 credits**

Focuses on the prefixes, suffixes, and root words of medical terminology. Students will practice pronunciation, spelling, and analysis of words associated with different body systems. Abbreviations common to the field of medical assisting will be introduced.

## Pharmacology for Allied Health ☑

**31509308 .....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.

## Technology Foundations for Medical Assistants

**31509318 ..... 1 credit**

The focus of this course is on the electronic technology used for professional communication, organization, and patient care. Students will explore basic word processing, spreadsheets, databases, presentation delivery, email correspondence, electronic health records, and the privacy and security issues important to the role of a medical assistant.

## Workplace Communication

**31801368 ..... 1 credit**

Analyze workplace communication situations to develop professional verbal and written communication skills. Learners apply verbal and written communication skills, as well as conflict resolution strategies, to improve workplace communication climates and promote personal and professional growth.



# 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: \_\_\_\_\_  
\_\_\_\_\_



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Adams, WI 53910

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2600 West 5th Street  
Marshfield, WI 54449

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## TECHNICAL DIPLOMA

### MEDICAL CODER

Technical Diploma • 30 Credits

#### Start Your Career

- Medical Coder
- Medical Claims Reviewer
- Financial Services Specialist

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### HEALTH INFORMATION MANAGEMENT

Associate in Applied Science (AAS) • 61-62 Credits

#### Start Your Career

- Medical Coder/Reviewer/Educator
- Revenue Cycle Coordinator
- Healthcare Information Data Analyst

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, The College of St. Scholastica, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-La Crosse, UW-Oshkosh, UW-Parkside, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Dental Assistant
- Health & Wellness Promotion
- Medical Assistant
- Nursing
- Nursing Assistant
- Phlebotomy Technician
- Respiratory Therapy
- Sterile Processing Technician
- Surgical Technology



## PROGRAM OUTCOMES

Employers will expect you, as a Medical Coder graduate, to be able to:

- Apply clinical documentation and diagnostic results to ensure accurate diagnostic and procedural coding.
- Validate completeness and accuracy of health data for coding, billing, and statistical purposes.
- Evaluate components of revenue cycle management and clinical documentation improvement.

## 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 the Inpatient Procedure Coding and Advanced Coding courses.

## 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### **10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		12 credits
10103106	Microsoft Office Introduction	3
10501101	Medical Terminology	3
10530123	Introduction to Digital Information in Healthcare	3
10806189	Basic Anatomy	3
Term		9 credits
10530144	CPT Coding	3
10530117	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
10530115	Inpatient Procedure Coding	3
<b>Total credits</b>		<b>30</b>

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10501101	Medical Terminology	3
10530123	Introduction to Digital Information in Healthcare	3
Term		9 credits
10806189	Basic Anatomy	3
10103106	Microsoft Office Introduction	3
10530117	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
10530115	Inpatient Procedure Coding	3
<b>Total credits</b>		<b>30</b>

### MULTIPLE MEASURES

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

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

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## 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.

*Prerequisite: High School GPA of 2.6 and MMS\_1 or Accuplacer Reading Skills of 249 or ACT Reading score of 15*

## 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 Digital Information in Healthcare 10530123; Corequisite: Human Disease for the Health Professions 10530117*

## 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 and Government Reimbursement 10530146 and Inpatient Procedure Coding 10530115*

## Human Disease for the Health Professions

**10530117 .....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, Basic Anatomy 10806189, and Introduction to Digital Information in Healthcare 10530123; Corequisite: Human Disease for the Health Professions 10530117*

## Inpatient Procedure Coding

**10530115 .....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.

*Prerequisite: ICD Diagnosis Coding 10530197; Corequisites: Private and Government Reimbursement 10530146 and HIM Advanced Coding 10530147*

## Introduction to Digital Information in Healthcare

**10530123 .....3 credits**

This introductory course examines the field of Health Information Management including the hardware and software systems used, common industry terminology, the security and ethical responsibilities of professionals in the field, and the current trends in the industry. Students will focus on accuracy and integrity of health data and confidentiality in this course.

*Corequisite: 10501101 Medical Terminology*

## 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**

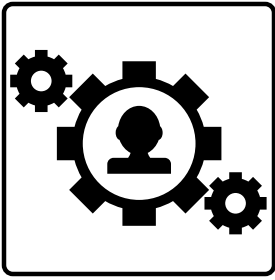
Develops introductory skills in the Microsoft Office Suite (Word, Excel, Access, PowerPoint, and Outlook) while reinforcing the students' knowledge of computer concepts, Windows Explorer, and web usage. This course prepares students for the Associate level MOS Certification exams for Word, Excel, PowerPoint, and Outlook. Students should possess basic keyboarding, mouse, and Windows 10 skills. Students may develop these skills in the Academic Learning Center while concurrently enrolled in this course.

## 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; Corequisites: Inpatient Procedure Coding 10530115; HIM Advanced Coding 10530147*



# METAL FABRICATION

## Technical Diploma Program Code: 31-457-2 Total Credits: 29

Mid-State's Metal Fabrication program prepares graduates for jobs as fabricators, fitters, mill beam fitters, welder-fabricators, structural-steel fabricators, weld technicians, and structural steel fitters. Students will work with a variety of metals and learn to produce and assemble structural metal products for machinery, ovens, tanks, pipes, stacks, and parts for buildings. They will learn the physical properties of metals and how to read job orders and blueprints. This program prepares students with an understanding of basic design, types of materials and their uses, weld types, and material fitting. Students train on equipment found in local industry and learn to operate press brakes, industrial hydraulic shears, ironworkers, CNC plasma cutting tables, robotic welders, plate rollers, grinders, welders, and various other metal cutting and fitting 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: \_\_\_\_\_  
\_\_\_\_\_



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# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### METAL FABRICATION

Technical Diploma • 29 Credits

#### Start Your Career

- Fabricator
- Metalworker
- Fitter
- Apprenticeship

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Advanced Manufacturing Technology
- Industrial Mechanical Technician
- Manufacturing Operations Management
- Precision Machining Technician
- Stainless Steel Welding
- Welding

### APPRENTICESHIP OPPORTUNITIES

- Ironworker Apprenticeship

## PROGRAM OUTCOMES

Employers will expect you, as a Metal Fabrication graduate, to be able to:

- Demonstrate industry recognized safety practices.
- Form materials to detailed drawings.
- Cut materials to detailed drawings.
- Join materials to detailed drawings.
- Layout components/assemblies.
- Inspect product.

## 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.

### College Reading and Writing 1

**10831104 .....3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		15 credits
10442111	Intermediate GMAW/FCAW	3
10457119	Fabrication Fundamentals 1	1
10457120	Fabrication Fundamentals 2	1
10623106	Intro to AutoCAD	1
10623114	Intro to Inventor	1
31442313	Gas Metal Arc Welding: Introduction	3
31442317	Print Reading for Welding	1
31457400	Measurement and Layout	1
31462318	Safety for Industrial Trades <input checked="" type="checkbox"/>	1
32420320	Math for Manufacturing	2

Term		14 credits
10442115	Welding Fabrication Techniques	2
31442314	GTAW: Introduction	2
31442316	Metallurgy for Welding	1
31442322	Robotic Welding	2
31457401	Metal Fabrication for Pipe	2
31457402	Metal Fabrication for Plate	2
31457403	CNC Programming and Operation	1
31462302	Machine Shop Foundations	2

**Total credits 29**

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		7 credits
10623106	Intro to AutoCAD	1
31442313	Gas Metal Arc Welding: Introduction	3
31442317	Print Reading for Welding	1
31457400	Measurement and Layout	1
31462318	Safety for Industrial Trades <input checked="" type="checkbox"/>	1

Term		8 credits
31442316	Metallurgy for Welding	1
31457401	Metal Fabrication for Pipe	2
31457402	Metal Fabrication for Plate	2
31457403	CNC Programming and Operation	1
31462302	Machine Shop Foundations	2

Term		8 credits
10442111	Intermediate GMAW/FCAW	3
10457119	Fabrication Fundamentals 1	1
10457120	Fabrication Fundamentals 2	1
10623114	Intro to Inventor	1
32420320	Math for Manufacturing	2

Term		6 credits
10442115	Welding Fabrication Techniques	2
31442322	Robotic Welding	2
31442314	GTAW: Introduction	2

**Total credits 29**



# COURSE DESCRIPTIONS

## **CNC Programming and Operation**

**31457403 ..... 1 credit**

Introduces fundamental concepts of CNC programming as related to metal fabrication. Learners apply concepts by creating and running simple programs with a welding robot, thermal shape-cutting system, and a press brake.

## **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: Introduction**

**31442313 ..... 3 credits**

Learners will use GMAW processes to weld on steel sheet metals and plates, focusing on axial spray, pulse spray and short circuit modes of transfer. Learners will understand written welding procedures and weld symbols and weld in several positions.

## **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*

## **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 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.

## **Machine Shop Foundations**

**31462302 ..... 2 credits**

This introductory course in machining will provide basic content related to shop safety, identification of common machine tools, their functions, and the basic processes they perform, and lab activities which will include basic setup 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 Precision Machining Technician 3142010 program, Welding program 314421, Gas Tungsten Arc Welding (Stainless Steel) 304427, or consent of instructor.*

## **Measurement and Layout**

**31457400 ..... 1 credit**

An introduction to measurement scales and the different tools used in fabrication. An introduction into the different layout methods used for pipe and plate fabrication incorporating angles, arcs and area.

## **Metal Fabrication for Pipe**

**31457401 ..... 2 credits**

An introduction into pipe fabrication where students will learn how to use the different machines involved with pipe bending, rolling, coping and cutting. Students will also learn accurate measuring and layout methods pertaining to bending and rolling.

## **Metal Fabrication for Plate**

**31457402 ..... 2 credits**

An introduction into plate fabrication where students will learn how to use the different machines involved with bending, rolling and cutting plate material. Students will also learn accurate measuring and layout methods involved with bending and rolling of plate material.

# COURSE DESCRIPTIONS

## **Metallurgy for Welding**

**31442316 ..... 1 credit**

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.

## **Print Reading for Welding**

**31442317 ..... 1 credit**

Learners will view, interpret, and create multi-view orthographic projection drawings, print symbols and dimensioning standards.

## **Robotic Welding**

**31442322 ..... 2 credits**

An introduction into the operation, set-up and uses for robots in the welding industry. Students will learn simple teach pendant techniques, perform CNC basics for making programs and utilizing welding knowledge for proper set-up of the robots, students will perform multiple functions to produce quality weldments performed by the robot.

## **Safety for Industrial Trades ☑**

**31462318 ..... 1 credit**

This course introduces basic concepts of safety, health, and environmental issues. Hazards and harm reduction protocols are covered, and completion of Occupational Safety and Health Administration (OSHA) 10-hour general industry certification is included in the course.

## **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.



# NAIL TECHNICIAN

## Technical Diploma Program Code: 30-502-4 Total Credits: 10

Mid-State's Nail Technician program prepares students to shape fingernails and toenails, remove unwanted skin and blemishes, apply polish and cosmetics to nails, and function as licensed manicurists or nail technicians/specialists. You'll learn manicuring theory; skin anatomy; nail growth, irregularities, and diseases; sterilization and sanitation; equipment and table maintenance; cuticle, blemish, and rough skin removal; nail filing, shaping, and polishing; cream application and extremity massage; nail sculpture and design art; product storage and use; customer service; laws and regulations; and business practices. You'll receive instruction and practice your new skills in our completely remodeled teaching/learning space and salon, which includes a room dedicated to nail technician students and nail services, with brand new manicure tables and pedicure thrones as well as equipment for acrylic and gel nail services.

**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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- National/Standardized Exams
- Transfer Credit
- Work and Life Experience

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## TECHNICAL DIPLOMA

### NAIL TECHNICIAN

Technical Diploma • 10 Credits

#### Start Your Career

- Nail Technician
- Manicurist
- Pedicurist

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

#### OTHER OPTIONS

#### RELATED PROGRAMS

- Barber Technologist
- Cosmetology

## PROGRAM OUTCOMES

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

- Apply safety and sanitation procedures.
- Adhere to the current Wisconsin administrative codes and statutes for cosmetology/manicurist licensing.
- Demonstrate interpersonal skills for success.
- 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 Manicurist Capstone course to fulfill the TSA requirement.

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This program meets the Wisconsin state nail technician requirement of 300 hours of training and is regulated by the Wisconsin Department of Safety and Professional Services.

Students must purchase a kit comprised of required tools and supplies. The cost of the kit is approximately \$400.

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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 and 31-502-xxx) not completed with a grade of "C" or better prior to progressing in core courses or other courses with co- or pre-requisites.

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. (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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### **10831104 .....3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.







# NURSING

## Associate in Applied Science (AAS) Program Code: 10-543-1 Total Credits: 66\*†

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 all required first- and second-semester nursing courses, students can opt to take the national licensing exam for practical nurse (NCLEX-PN). After completing the entire nursing program, graduates are eligible to take the national licensing exam for registered nurse (NCLEX-RN).

Mid-State's Nursing program prepares students to obtain the required licensure to be employed/practice in the state of Wisconsin. The College does not guarantee its curriculum matches the requirements for preparation, examination, or licensure for other states.

**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).

*\*The 1- credit GPS for Student Success course is a College requirement for graduation, not a Nursing program 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. Some students are exempt from this requirement. Please see your program advisor for more information.*

*†The Nursing Assistant course is required for admission to the Nursing associate degree program and is not counted in the total credit value for this program.*

### 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
- Technical Standards Form
- Health Work Requirement Discussion
- Other: \_\_\_\_\_  
\_\_\_\_\_



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

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

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### NURSING

Associate in Applied Science (AAS) • 66\*\* Credits

#### Start Your Career

- Staff Nurse
- Clinic Nurse
- Charge Nurse

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Alverno College, Arizona State University, Bryant & Stratton College, Carthage College, Chamberlain College of Nursing, Chamberlain University, Herzing University, Lakeland University, Marian University, Mount Mary University (MMU), Northern Michigan University, Purdue University Northwest, UW-Eau Claire, UW-Green Bay, UW-Oshkosh, UW-Madison, UW-Milwaukee, UW-Stevens Point, UW-Superior, Viterbo University, and Western Governors University.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Dental Assistant
- Health & Wellness Promotion
- Health Information Management
- Medical Assistant
- Medical Coder
- Nursing Assistant
- Phlebotomy Technician
- Respiratory Therapy
- Sterile Processing Technician
- Surgical Technology

## END OF PROGRAM STUDENT LEARNING OUTCOMES

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

- Integrate professional nursing identity reflecting integrity, responsibility, and nursing.
- Communicate comprehensive information using multiple sources in nursing practice.
- Integrate theoretical knowledge to support decision making.
- Integrate the nursing process into patient care across diverse populations.
- Function as a healthcare team member to provide safe and effective care.

## 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-RN 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 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)**  
3390 Peachtree Road NE, Suite 1400, 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 [midstatetech.tfaforms.net/217861](http://midstatetech.tfaforms.net/217861).

### Step 2 (required prior to starting core nursing classes):

1. Complete the Accuplacer or ACT test (if needed, as determined by academic advisor). Test scores are valid for five years.
2. Meet the math requirement of an ACT math score of 18, Accuplacer Arithmetic Score of 259, or completion of College Math or Statistics with a final grade of C or better.
3. Complete the Nursing Assistant pre-requisite requirement.
4. Complete the following courses with a grade of "C" or better:
  - General Anatomy & Physiology
  - Advanced Anatomy & Physiology
  - Developmental Psychology
  - English Composition 1

### Step 3 (Requires completion before graduating, but recommended prior to starting core nursing classes, the following courses with a grade of "C" or better):

- 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

Students are required to purchase an account with a third-party vendor who manages documents relating to criminal background check, CPR, and health work. The student is responsible for all fees associated with these requirements. All requirements must be completed to be eligible for clinical placement.

Clinical sites have the right to refuse a student (initial or continued) placement. Reasons for refusal may include (but are not limited to) incomplete agency-required orientation/computer-based training, incomplete health work requirements, results of the background check, pending charges, or conviction records. If the clinical site will not allow the student to participate in clinical, this may mean the student will not be able to progress in the program, and will not be able to complete the courses required for graduation.

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 American Heart Association or American Red Cross Basic Life Support CPR Certification.
- c) Complete all agency-required orientation and computer-based training.
- d) Accept responsibility for clinical assignment(s) regardless of time and location, including transportation and other personal arrangements.
- e) Obtain the required uniform for clinical experiences.

## 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. Grades earned in core nursing courses are not rounded and reflects the student’s actual grade.
- If a student is not successful in a Nursing 10543 core course, they 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.
4. To be eligible for testing and/or licensing in the state of Wisconsin, you may be required to obtain a social security number.

## 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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## 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. 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### **10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.





# 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 Step 1 & 2 Nursing program requirements. *Corequisites:* Nursing Skills 10543102 and Nursing Pharmacology 10543103

## 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 Step 1 & 2 Nursing program requirements; *Corequisites:* Nursing Fundamentals 10543101 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 1 & 2 Nursing program requirements. *Corequisites:* Nursing Fundamentals 10543101 and Nursing Skills 10543102

## Nursing Intro 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 Step 1 & 2 Nursing program requirements; *Corequisites:* Nursing Fundamentals 10543101, Nursing Skills 10543102, and Nursing Pharmacology 10543103

## Nursing Health Alterations

### 10543105 .....3 credits

This course elaborates upon the basic concepts of health and illness presented in Nursing Fundamentals. It applies theories of nursing in the care of clients through the lifespan, utilizing problem solving and critical thinking. This course will provide an opportunity to study conditions affecting different body systems and apply evidence based nursing interventions. It will also introduce concepts of leadership and management.

*Prerequisites:* Nursing Fundamentals 10543101, Nursing Skills 10543102, Nursing Pharmacology 10543103, and Nursing Intro Clinical Practice 10543104

## Nursing Health Promotion

### 10543106 .....3 credits

This course focuses on topics related to health promotion for individuals and families throughout the lifespan. Topics include reproductive issues, pregnancy, labor and delivery, post-partum, the newborn, and the child, adaptive and maladaptive behaviors applying mental health principles. An emphasis is placed on teaching and supporting healthy lifestyles choices for individuals of all ages. Nutrition, exercise, stress management, empowerment, and risk reduction practices are highlighted. Study of the family will cover dynamics, functions, discipline styles, and stages of development.

*Prerequisites:* Nursing Fundamentals 10543101, Nursing Skills 10543102, Nursing Pharmacology 10543103, and Nursing Intro Clinical Practice 10543104

## 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 Nursing Intro Clinical Practice 10543104; *Corequisite:* Nursing Health Promotion 10543106

## Intro 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 Nursing Intro Clinical Practice 10543104; *Corequisite:* Nursing Health Alterations 10543105

## 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:* Nursing Health Alterations 10543105, Nursing Health Promotion 10543106, Nursing Clinical Care Across the Lifespan 10543107, and Intro to Clinical Care Management 10543108

## 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:* Nursing Health Alterations 10543105, Nursing Health Promotion 10543106, Nursing Clinical Care Across the Lifespan 10543107, and Intro to Clinical Care Management 10543108



# COURSE DESCRIPTIONS

## **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, Nursing Clinical Care Across the Lifespan 10543107, and Intro to Clinical Care Management 10543108; Corequisites: Nursing Complex Health Alterations 1 10543109, Mental Health and Community Concepts 10543110, and Nursing Advanced Skills 10543112*

## **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: Nursing Health Alterations 10543105, Nursing Health Promotion 10543106, Nursing Clinical Care Across the Lifespan 10543107, and Intro to Clinical Care Management 10543108; Corequisites: Nursing Complex Health Alterations 1 10543109, and Mental Health and Community Concepts 10543110*

## **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: Nursing Complex Health Alterations 1 10543109, Mental Health and Community Concepts 10543110, Nursing Intermediate Clinical Practice 10543111, and Nursing Advanced Skills 10543112*

## **Nursing Management & 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: Nursing Complex Health Alterations 1 10543109, Mental Health and Community Concepts 10543110, Nursing Intermediate Clinical Practice 10543111, and Nursing Advanced Skills 10543112*

## **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: Nursing Complex Health Alterations 1 10543109, Mental Health and Community Concepts 10543110, Nursing Intermediate Clinical Practice 10543111, and Nursing Advanced Skills 10543112; Corequisites: Nursing Complex Health Alterations 2 10543113 and Nursing Management & Professional Concepts 10543114*

## **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: Nursing Advanced Clinical Practice 10543115*

## **Nursing Assistant<sup>†</sup>**

**30543300.....2 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*

## **English Composition 1**

**10801136 .....3 credits**

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

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

# COURSE DESCRIPTIONS

## Oral/Interpersonal Communication ☑

**10801196** ..... **3 credits**

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

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

## Speech ☑

**10801198** ..... **3 credits**

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

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

## 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 2.6 and MMS\_1 and MMM\_1 or Accuplacer Reading Skills of 262 and QAS of 246 or ACT Math score of 19 and Reading score of 19 or College Math 10804107 or Intermediate Algebra with Applications 10804118 with a "C" or better, or General Chemistry 10806134, or General Biology 10806114, or Human Body in Health & Disease 31509302*

## 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*

## Microbiology ☑

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

Examines microbial structure, metabolism, genetics, growth and the relationship between humans and microbes. Addresses disease production, epidemiology, host defense mechanisms and the medical impact of microbes. Presents the role of microbes in the environment, industry, and biotechnology.

*Prerequisite: "C" or better in General Anatomy & Physiology 10806177 or General Biology 10806114 or Plant Biology 10806184*

## Introduction to Diversity Studies ☑

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

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

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

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to 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, social organization, and workplace issues.

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

## Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*



# NURSING ASSISTANT

## Technical Diploma Program Code: 30-543-1 Total Credits: 2

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 81-hour program includes online learning, campus lab experiences, and a 30-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.

Mid-State's Nursing Assistant program course prepares students to obtain state certification to be employed/practice in the state of Wisconsin. The College does not guarantee its curriculum matches the requirements for preparation, examinations, or licensure for other states.

**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: \_\_\_\_\_  
\_\_\_\_\_



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**STEVENS POINT CAMPUS**  
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**WISCONSIN RAPIDS CAMPUS**  
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Wisconsin Rapids, WI 54494

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## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### NURSING ASSISTANT

Technical Diploma • 2 Credits

#### Start Your Career

- CBRF Caregiver
- Home Health Aide
- Nursing Assistant

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Dental Assistant
- Health & Wellness Promotion
- Health Information Management
- Medical Assistant
- Medical Coder
- Nursing
- Phlebotomy Technician
- Respiratory Therapy
- Sterile Processing Technician
- Surgical Technology

## PROGRAM OUTCOMES

Employers will expect you, as a Nursing Assistant graduate, to be able to:

- Communicate effectively with clients, family, and co-workers.
- Protect rights of clients.
- Demonstrate ethical and legal responsibilities.
- Work cooperatively in a team environment.
- Provide holistic, safe care to diverse populations
- Demonstrate reporting and documentation.
- Assist clients with rehabilitation and restorative care.
- Provide safe care for clients with acute and chronic health conditions.
- Complete educational requirements for 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 2.0 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, they are then able to register for the Nursing Assistant course.

## 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 and immunization records.

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 before the student is able to register for their preferred site. 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 30543200.

## 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 INFORMATION

- 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

Term	(2 credits)
30543200 Nursing Assistant	2
<b>Total credits 2</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/schedule](http://mstc.edu/schedule).

## COURSE DESCRIPTIONS

### Nursing Assistant

**30543200.....2 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 81-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. Through a variety of activities, you will learn to handle multiple projects and deadlines, manage time, solve problems, and be helpful in nature—all skills 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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- High School Credit
- Military Experience
- National/Standardized Exams
- Transfer Credit
- Work and Life Experience

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

## CERTIFICATE

### BUSINESS SKILLS

Certificate • 9 Credits

### FUNDAMENTALS OF BUSINESS ADMINISTRATION

Certificate • 9 Credits

### HUMAN RESOURCES FOUNDATIONS

Certificate • 9 Credits

### SMALL BUSINESS ENTREPRENEURSHIP

Certificate • 9 Credits

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

## TECHNICAL DIPLOMA

### CUSTOMER RELATIONSHIP PROFESSIONAL

Technical Diploma • 12 Credits

#### Start Your Career

- Call Center Agent
- Customer Care Representative
- Customer Service Representative

### ENTREPRENEUR

Technical Diploma • 16 Credits

#### Start Your Career

- Business Owner
- Entrepreneur
- Founder/CEO

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### HUMAN RESOURCES ASSISTANT

Technical Diploma • 32 Credits

#### Start Your Career

- HR Generalist
- HR Recruitment Coordinator
- Job Analyst

### OFFICE SUPPORT SPECIALIST

Technical Diploma • 32 Credits

#### Start Your Career

- Administrative Assistant
- Office Assistant
- Receptionist

## BACHELOR'S DEGREE

### BUSINESS MANAGEMENT

Associate in Applied Science (AAS) • 64-65 Credits

#### Start Your Career

- Account Executive
- Department Supervisor
- Office Manager

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Viterbo University, Western Governor's University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Human Resources
- Project Management
- Leadership Development



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10102101	Introduction to Business	3
10102138	Organizational Behavior	3
10102231	Business Networking	1
10106106	Quality Customer Service	3
10801195	Written Communication	3
10801198	Speech	3

Term		16 credits
10101140	Accounting 1	3
10102230	Business Communities	1
10103106	Microsoft Office-Introduction	3
10104102	Marketing Principles	3
10106190	Professional Business Skills	3
10196189	Team Building & Problem Solving	3

**Total credits 32**

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

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		7 credits
10102101	Introduction to Business	3
10102231	Business Networking	1
10801198	Speech	3

Term		9 credits
10102138	Organizational Behavior	3
10106106	Quality Customer Service	3
10801195	Written Communication	3

Term		7 credits
10101140	Accounting 1	3
10102230	Business Communities	1
10196189	Team Building & Problem Solving	3

Term		9 credits
10103106	Microsoft Office-Introduction	3
10104102	Marketing Principles	3
10106190	Professional Business Skills	3

**Total credits 32**

### MULTIPLE MEASURES

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

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

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Accounting 1

**10101140.....3 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 Communities

**10102230 ..... 1 credit**

This course provides students with a comprehensive understanding of how different business communities operate, how they contribute to economic ecosystems, and how learners can participate effectively. This course will explore the dynamics, structures, and strategies involved in various professional associations, including local, global, industry-specific, and online communities.

## Business Networking

**10102231..... 1 credit**

This course will equip students with the knowledge, strategies, and practical techniques to build, nurture, and leverage professional relationships for personal and organizational success. Through a combination of classroom instruction, interactive exercises, and simulated practice, this course will empower students to enhance their networking abilities, expand their professional circles, and create valuable connections.

## Introduction 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. This course prepares students for the Associate level MOS Certification exams for Word, Excel, PowerPoint, and Outlook. Students should possess basic keyboarding, mouse, and Windows 11 skills. Students may develop these skills in the Academic Learning Center 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.

## Professional Business Skills

**10106190 .....3 credits**

This course introduces critical technology and organizational skills for the modern workplace. Participants will learn calendar management and meeting scheduling, virtual and in-person meeting hosting, document formatting and filing, and presentation layout and design using industry-standard cloud-based applications. This course emphasizes practical applications to ensure participants can immediately apply their acquired skills in real-world scenarios.

## Quality Customer Service

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

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

## Speech

**10801198 .....3 credits**

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

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

## 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.

## Written Communication

**10801195 .....3 credits**

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

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



# 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.

Mid-State's Paramedic Technician program prepares students to obtain the required licensure to be employed/practice in the state of Wisconsin. The College does not guarantee its curriculum matches the requirements for preparation, examination, or licensure for other states.

**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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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



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COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### EMT-PARAMEDIC

Technical Diploma • 38 Credits

#### Start Your Career

- Emergency/Urgent Care Technician
- Paramedic Technician

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### PARAMEDIC TECHNICIAN

Associate in Applied Science (AAS) • 66 Credits

#### Start Your Career

- Paramedic
- Emergency Department Technician

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, Southern Illinois University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Advanced Emergency Medical Technician
- Criminal Justice-Corrections & Community Advocacy
- Criminal Justice-Law Enforcement 720 Academy
- Criminal Justice-Studies
- Emergency Medical Technician
- Emergency Services Management
- Fire Service Certification

## 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### 10831104 ..... 3 credits







Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.





### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION


Term		16 credits
10531940	EMT Foundations	3
10801136	English Composition 1 	3
10806177	General Anatomy & Physiology 	4
10809172	Introduction to Diversity Studies  -or-	
10809122	Intro to American Government  -or-	
10809196	Intro to Sociology 	3
10809198	Intro to Psychology 	3

Term		12 credits
10531941	EMT Applications	2
10801196	Oral/Interpersonal Communication  -or-	
10801198	Speech  -or-	
10801197	Technical Reporting	3
10804107	College Mathematics 	3
10806134	General Chemistry  -or-	
10806179	Advanced Anatomy & Physiology	4

Term		19 credits
10531911	EMS Fundamental	2
10531912	Paramedic Medical Principles	4
10531913	Patient Assessment Principles	3
10531914	Prehospital Pharmacology	3
10531915	Paramedic Respiratory Management	2
10531918	Advanced Resuscitation	1
10531955	Paramedic Cardiology 1	2
10531959	Paramedic Clinical	2

Term		19 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
10531960	Paramedic Clinical/Field Prep	1

**Total credits 66**

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

Please Note:

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

## MULTIPLE MEASURES

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

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

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Advanced 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**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better*

## EMS Fundamental

**10531911 .....2 credits**

Provides learners 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. Learners obtain fundamental knowledge of public health principles and epidemiology as related to public health emergencies, health promotion, and illness/injury prevention. Introduces learners to comprehensive anatomical and medical terminology with the aim of fostering the development of effective communications with colleagues and other healthcare professionals.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## 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.

*Admission to Paramedic Technician program 105311 or Emergency Medical Technician program 305313 or Fire Service Certification program 305032*

## English Composition 1

**10801136 .....3 credits**

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

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

# COURSE DESCRIPTIONS

## 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 2.6 and MMS\_1 and MMM\_1 or Accuplacer Reading Skills of 262 and QAS of 246 or ACT Math score of 19 and Reading score of 19 or College Math 10804107 or Intermediate Algebra with Applications 10804118 with a "C" or better, or General Chemistry 10806134, or General Biology 10806114, or Human Body in Health & Disease 31509302*

## 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.

*Prerequisite: High School GPA of 2.6 and MMS\_1 and MMM\_1 or Accuplacer Reading Skills of 262 and QAS of 246 or ACT Math score of 19 and Reading score of 19 or College Mathematics 10804107 or Intermediate Algebra with Applications 10804118 with a "C" or better*

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to 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, social organization, and workplace issues.

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

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Oral/Interpersonal Communication ☑

**10801196 .....3 credits**

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

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

## 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*



# COURSE DESCRIPTIONS

## 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

**10531959.....2 credits**

Enhances learning through the practice of paramedicine in a healthcare environment. Learners will experience actual patients under the supervision of instructors or approved preceptors. Learners will also have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## Paramedic Clinical/Field Prep

**10531960 .....1 credit**

Enhances learning through the practice of paramedicine in a healthcare or field environment. Learners will experience actual patients under the supervision of instructors or approved preceptors.

*Prerequisite: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311*

## 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.

*Prerequisites: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311 and Advanced Resuscitation 10531918*

## 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.

*Prerequisites: Admission to Paramedic Technician program 105311 or EMT-Paramedic program 315311 and Advanced Resuscitation 10531918*

## 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*



# COURSE DESCRIPTIONS

## 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. Includes informative, persuasive, and occasion speech presentations.

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

## 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 1 10801136 with a grade of "C" or better or Written Communication 10801195 with a grade of "C" or better*



# PHLEBOTOMY TECHNICIAN

## Technical Diploma Program Code: 30-513-1 Total Credits: 6

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.

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

# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### PHLEBOTOMY TECHNICIAN

Technical Diploma • 6 Credits

#### Start Your Career

- Phlebotomist
- Laboratory Assistant
- Blood Donor Specialist

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Dental Assistant
- Health & Wellness Promotion
- Health Information Management
- Medical Assistant
- Medical Coder
- Nursing
- Nursing Assistant
- Respiratory Therapy
- Sterile Processing Technician
- Surgical Technology

## 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 enroll in the Phlebotomy Clinical, students must earn 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.

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.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

**10831104 .....3 credits**

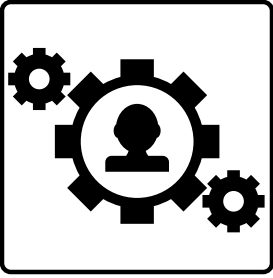
Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.





# PRECISION MACHINING TECHNICIAN

**Technical Diploma**  
**Program Code: 31-420-10**  
**Total Credits: 52-53**

The Precision Machining 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)

## 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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Form(s): \_\_\_\_\_
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COLLEGE TRANSFER

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

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

## TECHNICAL DIPLOMA

### PRECISION MACHINING TECHNICIAN

Technical Diploma • 52-53 Credits

#### Start Your Career

- Advanced Machine Operator
- CNC Machine Operator
- Job Shop Machinist
- Apprenticeship

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Advanced Manufacturing Technology
- Industrial Mechanical Technician
- Manufacturing Operations Management
- Metal Fabrication
- Stainless Steel Welding
- Welding

### APPRENTICESHIP OPPORTUNITIES

- Machinist Apprenticeship



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		14-15 credits
31804305	Applied Mathematics	2
	<b>-or-</b>	
10804107	College Mathematics ☑	3
32420311	Safety, Measurement, and Layout	1
32420326	Introduction to Turning Machines	2
32420329	Intermediate Turning Applications	5
32420331	Print Reading for Precision Machining	2
32420373	CNC Lathes Set Up and Operation ☑	2

Term		12 credits
31801368	Workplace Communication	1
32420310	Introduction to Solid Modeling	2
32420337	Introduction to Milling Machines	2
32420340	Intermediate Milling Applications	5
32420374	CNC Mills Set Up and Operation ☑	2

Term		12 credits
32420325	Inspection with Geometric Dimensioning	2
32420330	Advanced Turning Applications	3
32420332	Materials and Machinability	2
32420362	CNC Lathes/Manual Programming ☑	2
32444377	CNC Lathes Computer Aided Programming	2
32623301	Manufacturing Principles	1

Term		14 credits
32420341	Advanced Milling Applications	3
32420364	CNC Mills/Manual Programming	2
32420380	Multi-Axis Machining Processes	3
32444378	CNC Mills Computer Aided Programming	3
32444379	Advanced CNC Milling Operations	3

**Total credits 52-53**

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		7 credits
32420311	Safety, Measurement, and Layout	1
32420326	Introduction to Turning Machines	2
32420331	Print Reading for Precision Machining	2
32420332	Materials and Machinability	2

Term		6-7 credits
31804305	Applied Mathematics	2
	<b>-or-</b>	
10804107	College Mathematics ☑	3
32420310	Introduction to Solid Modeling	2
32420337	Introduction to Milling Machines	2

Term		6 credits
32420329	Intermediate Turning Applications	5
32623301	Manufacturing Principles	1

Term		7 credits
32420340	Intermediate Milling Applications	5
32420374	CNC Mills Set Up and Operation ☑	2

Term		6 credits
31801368	Workplace Communication	1
32420325	Inspection with Geometric Dimensioning	2
32420330	Advanced Turning Applications	3

Term		8 credits
32420341	Advanced Milling Applications	3
32420364	CNC Mills/Manual Programming	2
32444378	CNC Mills Computer Aided Programming	3

Term		6 credits
32420373	CNC Lathes Set Up and Operation ☑	2
32420362	CNC Lathes/Manual Programming ☑	2
32444377	CNC Lathes Computer Aided Programming	2

Term		6 credits
32420380	Multi-Axis Machining Processes	3
32444379	Advanced CNC Milling Operations	3

**Total credits 52-53**

## MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Advanced 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.

*Corequisite: CNC Mills/Manual Programming 32420364*

## Advanced Milling Applications

**32420341 .....3 credits**

Students in this class will receive further insight into milling machine concepts. This course places major emphasis on work-holding methods with the use of jigs and fixtures. Jig and fixture design elements for location and rigid work holding in both a production environment as well as single piece runs, and advanced cutting tools and cutting processes will be explored to focus on manufacturing efficiency.

*Prerequisite: Intermediate Milling Applications 32420340*

## Advanced Turning Applications

**32420330 .....3 credits**

Students in this class will receive further insight into turning machine concepts. This course includes a safety review and adds depth in advanced cutting tool materials such as ceramics, cubic boron nitride (CBN), and polycrystalline diamonds (PCD). Learners will explore differing fixturing and tooling needs for a production environment as well as planning for single piece runs.

*Prerequisite: Intermediate Turning Applications 32420329*

## Applied Mathematics

**31804305 .....2 credits**

Students taking Applied Mathematics 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.

## 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.

## 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.

# COURSE DESCRIPTIONS

## College Mathematics ☑

### 10804107 .....3 credits

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better*

## 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.

## Intermediate Milling Applications

### 32420340 .....5 credits

This course will develop additional skills needed for effective milling machine operations. Common work holding and fix turing tools will be utilized to create parts accurately and efficiently. Classroom presentation and lab activities will be utilized to hone the learner's skills with manual milling machines. Attention will be on safety, machine setups, operations, calculations, and inspection.

*Corequisite: Introduction to Milling Machines 32420337*

## Intermediate Turning Applications

### 32420329 .....5 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 machine setups, metal removal techniques, and common calculations encountered on the job. Lab projects will be created using techniques to ensure accuracy, efficiency, and repeatability with an introduction to CNC. Emphasis will be put on common turning procedures with inspection processes to produce quality components.

*Corequisite: Introduction to Turning Machines 32420326*

## 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.

## Manufacturing Principles

### 32623301 .....1 credit

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).

## Materials and Machinability

### 32420332 .....2 credits

This course covers sources, strengths, and industry uses for common metals and materials.

# COURSE DESCRIPTIONS

## 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.

*Prerequisites: CNC Lathes Set Up and Operation 32420373 and CNC Mills Set Up and Operation 32420374*

## Print Reading for Precision Machining

**32420331 .....2 credits**

Learners are introduced to interpreting multi-view orthographic projection drawings, callouts and symbols, GD&T, dimensioning, tolerancing standards, and assembly drawings in relationship to the machining industry.

## Safety, Measurement and Layout

**32420311 ..... 1 credits**

In this course students become familiar with the machine shop environment. An overview of safety is covered with emphasis in lathes, mills, cut-off machines, and grinders. Learners are also introduced to measurement with various types of precision measurement tools, including micrometers, height gages, and calipers.

## Workplace Communication

**31801368 ..... 1 credit**

Analyze workplace communication situations to develop professional verbal and written communication skills. Learners apply verbal and written communication skills, as well as conflict resolution strategies, to improve workplace communication climates and promote personal and professional growth.





# PROJECT MANAGEMENT

## Technical Diploma Program Code: 31-196-2 Total Credits: 32

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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### CHECKLIST:

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- Work and Life Experience

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## CERTIFICATE

### TEAM LEADERSHIP

Certificate • 9 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## TECHNICAL DIPLOMA

### PROJECT MANAGEMENT

Technical Diploma • 32 Credits

#### Start Your Career

- Project Manager
- Implementation Manager
- Project Leader

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### LEADERSHIP DEVELOPMENT

Associate in Applied Science (AAS) • 61-62 Credits

#### Start Your Career

- Supervisor
- Manager
- Team Leader

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Herzing University and UW-Oshkosh.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Business Management
- Customer Relationship Professional
- Entrepreneur
- Human Resources
- Human Resources Assistant
- Office Support Specialist



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		16 credits
10101140	Accounting 1	3
10102231	Business Networking	1
10196189	Team Building & Problem Solving	3
10196190	Leadership Development	3
10801195	Written Communication	3
10801196	Oral/Interpersonal Communication	3

Term		16 credits
10102230	Business Communities	1
10103106	Microsoft Office-Introduction	3
10196152	Strategic Leadership	3
10196188	Project Management	3
10196192	Managing for Quality	3
10804107	College Mathematics	3

**Total credits 32**

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

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		7 credits
10102231	Business Networking	1
10196190	Leadership Development	3
10801196	Oral/Interpersonal Communication	3

Term		9 credits
10101140	Accounting 1	3
10196189	Team Building & Problem Solving	3
10801195	Written Communication	3

Term		7 credits
10102230	Business Communities	1
10196192	Managing for Quality	3
10804107	College Mathematics	3

Term		9 credits
10103106	Microsoft Office-Introduction	3
10196152	Strategic Leadership	3
10196188	Project Management	3

**Total credits 32**

### MULTIPLE MEASURES

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

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

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Accounting 1

**10101140.....3 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 Communities

**10102230 ..... 1 credit**

This course provides students with a comprehensive understanding of how different business communities operate, how they contribute to economic ecosystems, and how learners can participate effectively. This course will explore the dynamics, structures, and strategies involved in various professional associations, including local, global, industry-specific, and online communities.

## Business Networking

**10102231..... 1 credit**

This course will equip students with the knowledge, strategies, and practical techniques to build, nurture, and leverage professional relationships for personal and organizational success. Through a combination of classroom instruction, interactive exercises, and simulated practice, this course will empower students to enhance their networking abilities, expand their professional circles, and create valuable connections.

## College Mathematics

**10804107 .....3 credits**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better

## 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.

## 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. This course prepares students for the Associate level MOS Certification exams for Word, Excel, PowerPoint, and Outlook. Students should possess basic keyboarding, mouse, and Windows 11 skills. Students may develop these skills in the Academic Learning Center 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English

## Project Management

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

Applies skills and tools necessary to design, implement, and evaluate formal projects. Each learner will examine the role of project management, create a project charter, define project work scope, manage project risks, and develop a network diagram, project schedule, and project budget.

Prerequisite: Nine core credits from a 101, 102, 103, 109, 196, or 623 program code.

## Strategic Leadership

**10196152.....3 credits**

This course provides students with a comprehensive understanding of strategic thinking, decision-making, and the skills necessary to lead organizations toward long-term success. This course explores strategic planning, change management, strategic directions, organizational effectiveness metrics and building and sustaining organizational trust.

# COURSE DESCRIPTIONS

## **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.

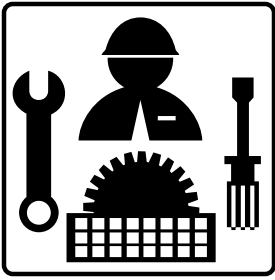
## **Written Communication**

**10801195 .....3 credits**

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

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





# 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)

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

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HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### CONSTRUCTION TRADES

Technical Diploma • 10 Credits

#### Start Your Career

- Electrical Contracting Laborer
- Carpentry Contracting Laborer
- Plumbing Contracting Laborer
- Apprenticeship

### HEATING, VENTILATION, & AIR CONDITIONING (HVAC) INSTALLER

Technical Diploma • 24 Credits

#### Start Your Career

- Building Controls Technician
- Heating, Ventilation, and Air Conditioning Installer
- Heating and Air Conditioning Mechanic
- Apprenticeship

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### RENEWABLE ENERGY TECHNICIAN

Associate in Applied Science (AAS) • 60 Credits

#### Start Your Career

- Energy Load Estimator
- Renewable Energy Technical Sales Representative
- Solar Installer
- Apprenticeship

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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



## SAMPLE FULL-TIME CURRICULUM OPTION

Term		17 credits
10476171	Safety for Construction Trades ☑	1
10480101	Renewable Energy Overview	2
10482107	Construction Fundamentals	2
10483123	Piping Installation	2
10601110	HVAC Heating Fundamentals	2
10601130	Blueprint Reading for Construction Trades	2
10601140	Electricity for the Construction Trades	2
10804107	College Mathematics ☑	3
31442320	Welding Foundations 1 <b>-or-</b>	
31442321	Welding Foundations 2	1
Term		16 credits
10483103	Electrical Components & Control Circuits	2
10483113	Hydronics and Heat Pumps	3
10483115	Energy Load Estimation and Modeling	3
10601120	HVAC Air Conditioning Fundamentals	2
10601121	Intro to HVAC Installation	2
10623106	Intro to AutoCAD	1
10801136	English Composition 1 ☑	3
Term		15 credits
10482104	Energy Storage Systems	3
10482110	Photovoltaic System Design & Installation	3
10482140	Planning, Design, & Project Management 1	3
10801198	Speech ☑ <b>-or-</b>	
10801196	Oral/Interpersonal Communication ☑	3
10809195	Economics ☑	3
Term		12 credits
10482106	Operations and Maintenance of PV Systems	3
10482141	Planning, Design, & Project Management 2	3
10809166	Intro to Ethics: Theory & Application ☑	3
10809198	Intro to Psychology ☑ <b>-or-</b>	
10809188	Developmental Psychology ☑	3
<b>Total credits 60</b>		

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		9 credits
10476171	Safety for Construction Trades ☑	1
10480101	Renewable Energy Overview	2
10601140	Electricity for the Construction Trades	2
10804107	College Mathematics ☑	3
31442320	Welding Foundations 1 <b>-or-</b>	
31442321	Welding Foundations 2	1
Term		8 credits
10483113	Hydronics and Heat Pumps	3
10601120	HVAC Air Conditioning Fundamentals	2
10801136	English Composition 1 ☑	3
Term		6 credit
10482107	Construction Fundamentals	2
10483123	Piping Installation	2
10601110	HVAC Heating Fundamentals	2
Term		8 credits
10483102	Electrical Components & Control Circuits	2
10483115	Energy Load Estimation and Modeling	3
10601121	Intro to HVAC Installation	2
10623106	Intro to AutoCAD	1
Term		8 credits
10482104	Energy Storage Systems	3
10482140	Planning, Design, & Project Management 1	3
10601130	Blueprint Reading for Construction Trades	2
Term		6 credits
10482110	Planning, Design, & Project Management 2	3
10809166	Intro to Ethics: Theory & Application ☑	3
Term		9 credits
10482110	Photovoltaic System Design & Installation	3
10801198	Speech ☑ <b>-or-</b>	
10801196	Oral/Interpersonal Communication ☑	3
10809195	Economics ☑	3
Term		6 credits
10482106	Operations and Maintenance of PV Systems	3
10809198	Intro to Psychology ☑ <b>-or-</b>	
10809188	Developmental Psychology ☑	3
<b>Total credits 60</b>		

## MULTIPLE MEASURES

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

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

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## **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.

## **College Mathematics**

**10804107.....3 credits**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better*

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Electrical Components & Control Circuits**

**10482103.....2 credits**

Topics include a review of AC/DC electricity fundamentals 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.

*Prerequisite: Electrical Circuits I 10605105 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.

## **Energy Storage Systems**

**10482104.....3 credits**

Students continue to develop their knowledge of photovoltaic systems by designing solar + storage systems for residential and small-commercial applications. The energy storage systems analyzed will include multiple battery technologies and system sizes. Students will plan the installation of a grid-connected energy storage system and an off-grid stationary or mobile system.

# COURSE DESCRIPTIONS

## English Composition 1 ☑

**10801136 .....3 credits**

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

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

## HVAC Air Conditioning Fundamentals

**10601120 .....2 credits**

Topics include air conditioning principles and terms, the refrigeration vapor and compression cycle, refrigerants and oils, and methods of conditioning air for comfort and health. Also covers the proper use of refrigeration gauges, dry bulb thermometers, hygrometers, and reading and interpretation of psychrometric charts and scales as well as EPA 608 refrigerant handling standards.

## 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.)

## Hydronics and Heat Pumps

**10483113 .....3 credits**

Students participate in the installation and design of a hydronic hot water and heat pump system. Topics include safety; system design and layout; component selection; mounting hydronic heat sources; installing distribution tubing; and installing heat emitters, air separator, circulation pumps, and other system components.

## 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 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Intro to 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 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Operations and Maintenance of PV Systems

**10482106 .....3 credits**

Introduces basic principles and best practices for operating and maintaining PV systems. Students will analyze performance evaluation techniques and develop procedures for maintaining and troubleshooting photovoltaic systems. Students will use diagnostic tools such as an I-V curve tracer, Insulation resistance meter, pyranometers, thermal imagers, clamp-on meters, and digital multimeters while gaining hands-on experience with commercial, residential and solar + storage systems.

## Oral/Interpersonal Communication ☑

**10801196 .....3 credits**

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

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



# COURSE DESCRIPTIONS

## Photovoltaic System Design & Installation

**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.

## Piping Installation

**10483123 .....2 credits**

This course introduces students to the fundamentals of measuring, fitting, joining, and installing piping common to 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.

## Safety for Construction Trades ☑

**10476171 .....1 credit**

The Safety 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. Students will familiarize themselves with the proper selection and use of personal protective equipment and safety requirements on a construction site for various activities. Course outcomes align with the training outcomes recommended by OSHA. Upon successful completion, students will receive an OSHA 10 Card.

## Speech ☑

**10801198 .....3 credits**

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

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

## Welding Foundations 1

**31442320 .....1 credit**

An introductory welding course focusing on FCAW, GMAW and oxy-fuel cutting. Lecture and lab activities are designed to emphasize safe work habits.

## Welding Foundations 2

**31442321 .....1 credit**

An introductory welding course focusing on GTAW, SMAW and plasma cutting processes. Lecture and lab activities are designed to emphasize safe work habits.



# 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

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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
- Criminal Background Statement of  
Understanding and Release of  
Information Form
- Other: \_\_\_\_\_  
\_\_\_\_\_



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Wisconsin Rapids, WI 54494

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## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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



## RESPIRATORY THERAPY

Associate in Applied Science (AAS) • 69 Credits

### Start Your Career

- Respiratory Therapist
- Cardiopulmonary Technician
- Polysomnography (Sleep Lab) Technician



## BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Mary, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Dental Assistant
- Health & Wellness Promotion
- Health Information Management
- Medical Assistant
- Medical Coder
- Nursing
- Nursing Assistant
- Phlebotomy Technician
- Sterile Processing Technician
- Surgical Technology

## 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 most states are licensed professionals. The Respiratory Therapist program is accredited by the Commission on Accreditation for Respiratory Care (CoARC).



### Commission on Accreditation for Respiratory Care (CoARC)

264 Precision Boulevard, Telford, TN 37690  
817.283.2835 • [www.coarc.com](http://www.coarc.com)

CoARC Program #: 200234

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## 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 guaranteed course start date in core Respiratory Therapy Program courses (515-level classes):

### 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.

## 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		16 credits
10501101	Medical Terminology ☑	3
10515111	Respiratory Survey	3
10515171	Respiratory Therapeutics 1	3
10801136	English Composition 1 ☑ -or-	
10801195	Written Communication ☑	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
10809196	Intro to Sociology ☑ -or-	
10809122	Intro to American Government ☑ -or-	
10809172	Introduction to Diversity Studies ☑	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
10809198	Intro to Psychology ☑ -or-	
10809188	Developmental Psychology ☑	3
<b>Total Credits 69</b>		

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term		6 credits
10501101	Medical Terminology ☑	3
10801136	English Composition 1 ☑ -or-	
10801195	Written Communication ☑	3
Term		7 credits
10806177	General Anatomy & Physiology ☑	4
10809196	Intro to Sociology ☑ -or-	
10809122	Intro to American Government ☑ -or-	
10809172	Introduction to Diversity Studies ☑	3
Term		7 credits
10806197	Microbiology ☑	4
10809198	Intro to Psychology ☑ -or-	
10809188	Developmental 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 69</b>		

### MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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



# COURSE DESCRIPTIONS

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **English Composition 1** ☑

**10801136 .....3 credits**

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

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

## **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 2.6 and MMS\_1 and MMM\_1 or Accuplacer Reading Skills of 262 and QAS of 246 or ACT Math score of 19 and Reading score of 19 or College Math 10804107 or Intermediate Algebra with Applications 10804118 with a "C" or better, or General Chemistry 10806134, or General Biology 10806114, or Human Body in Health & Disease 31509302*

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to 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, social organization, and workplace issues.

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

## **Introduction to Diversity Studies** ☑

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

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

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

## **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 microbes. Addresses disease production, epidemiology, host defense mechanisms and the medical impact of microbes. Presents the role of microbes in the environment, industry, and biotechnology.

*Prerequisite: "C" or better in General Anatomy & Physiology 10806177 or General Biology 10806114 or Plant Biology 10806184*

## **Oral/Interpersonal Communication ☒**

**10801196 .....3 credits**

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

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

## **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.

*Prerequisite: Respiratory Life Support 10515113; Corequisite: Respiratory Clinical 3 10515179*

## **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*

# COURSE DESCRIPTIONS

## 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.

*Prerequisites: Admission to Respiratory Therapy program 105151 and Accuplacer Arithmetic of 259, ACT of 18, College Math 10104107 or Introductory Statistics 10804189; 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.

*Prerequisites: Admission to Respiratory Therapy program 105151 and Accuplacer Arithmetic of 259, ACT of 18, College Math 10104107 or Introductory Statistics 10804189; 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. Includes informative, persuasive, and occasion speech presentations.

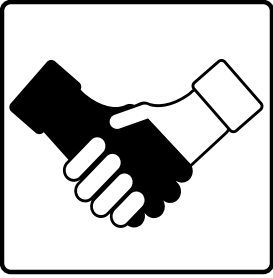
*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 253 and Writing of 262 or ACT of 21 Reading/19 English or completion of College Reading and Writing 1 10831104 with a "C" or better*

## Written Communication

**10801195 .....3 credits**

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

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



# SALES SPECIALIST

## Technical Diploma Program Code: 30-104-7 Total Credits: 18

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.

- 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](http://mstc.edu) • 888.575.6782 • TTY: 711



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

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

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

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

# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## CERTIFICATE

### ADOBE SUITE

Certificate • 6 Credits

### FUNDAMENTALS OF BUSINESS ADMINISTRATION

Certificate • 9 Credits

### SOCIAL & MOBILE MARKETING

Certificate • 6 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## TECHNICAL DIPLOMA

### DIGITAL MARKETING PROMOTIONS

Technical Diploma • 18 Credits

### SALES SPECIALIST

Technical Diploma • 18 Credits

#### Start Your Career

- Digital Marketing Coordinator
- Marketing Assistant
- Social Media Specialist

#### Start Your Career

- Customer Service Representative
- Field Sales Representative
- Sales Merchandise

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### DIGITAL MARKETING

Associate in Applied Science (AAS) • 63-64 Credits

#### Start Your Career

- Account Representative
- Advertising and Promotions Manager
- Marketing Coordinator

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Herzing University, Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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



## PROGRAM OUTCOMES

Employers will expect you, as a Sales Specialist graduate, to be able to:

- Develop marketing strategies.
- Develop selling strategies.
- Deliver sales presentations.
- Apply customer relationship building strategies.
- Analyze sales information.
- Prepare selling strategies.
- Promote products, services, images and/or ideas to achieve a desired result.

## 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 performance-based assessments in the Professional Selling course to fulfill the TSA requirement.

## 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### 10831104 ..... 3 credits

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.


### 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.

## SAMPLE PART-TIME CURRICULUM OPTION

Term		9 credits
10104102	Marketing Principles 	3
10801136	English Composition 1 	3
10801198	Speech 	3
Term		9 credits
10104105	Professional Selling 	3
10104107	Social Media Marketing	3
10104121	Fundamentals of Marketing Communications 	3
<b>Total credits</b>		<b>18</b>

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

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

## MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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



# COURSE DESCRIPTIONS

## **English Composition 1** ☑

**10801136** .....**3 credits**

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

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

## **Fundamentals of Marketing Communications** ☑

**10104121** .....**3 credits**

This course prepares the learner to create and manage a wide range of internal and external organizational communications. 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, developing a professional appearance and polish, presentation techniques for the creation and delivery of complex marketing materials, 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**

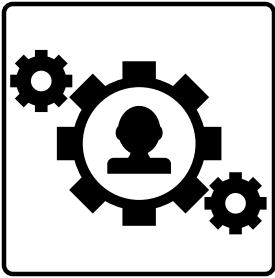
Addresses how social media has transformed marketing communications from traditional mass media to individualized marketing. Using a variety of social media tools and platforms, this class explores the different methodologies for social media marketing. Topics include creating social media, integrating 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. Includes informative, persuasive, and occasion speech presentations.

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



# 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:

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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Wisconsin Rapids, WI 54494

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HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## TECHNICAL DIPLOMA

### STAINLESS STEEL WELDING

Technical Diploma • 6 Credits

#### Start Your Career

- Production Line Welder
- Stainless Steel Welder
- TIG Welder
- Apprenticeship

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Advanced Manufacturing Technology
- Industrial Mechanical Technician
- Manufacturing Operations Management
- Metal Fabrication
- Precision Machining Technician
- Welding

### 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.

### College Reading and Writing 1

**10831104 .....3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term	6 credits
30442104 Basic TIG (Stainless)	2
30442105 Intermediate TIG (Stainless)	2
30442106 Advanced TIG (Stainless)	2
<b>Total credits 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/schedule](http://mstc.edu/schedule).

## COURSE DESCRIPTIONS

### Advanced TIG (Stainless)

**30442106 .....2 credits**

Students learn advanced GTAW processes through the completion of stainless steel pipe weldments in the 5G and 6G positions.

*Corequisite: Intermediate TIG (Stainless) 10442105.*

### Basic TIG (Stainless)

**30442104 .....2 credits**

An introduction to the gas tungsten arc welding (GTAW) process commonly known as TIG. Topics include study and application of necessary safety and care of equipment and supplies. The student develops skills with the common production welding joints and materials all completed on stainless steel.

### Intermediate TIG (Stainless)

**30442105.....2 credits**

Intermediate GTAW weldments created in the horizontal and vertical positions on stainless steel. Pulsed current is applied to stainless steel weldments. Complete penetration groove welds in stainless steel are practiced and evaluated.

*Corequisite: Basic TIG (Stainless) 10442104.*



# STERILE PROCESSING TECHNICIAN

**Technical Diploma**  
**Program Code: 30-534-2**  
**Total Credits: 17-20**

Mid-State's hands-on Sterile Processing 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  
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- Criminal Background Statement of  
Understanding and Release of  
Information Form
- Other: \_\_\_\_\_  
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- High School Credit
- Military Experience
- National/Standardized Exams
- Transfer Credit
- Work and Life Experience

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

## CERTIFICATE

### HEALTHCARE FOUNDATIONS

Certificate • 6 Credits

## TECHNICAL DIPLOMA

### STERILE PROCESSING TECHNICIAN

Technical Diploma • 17-20 Credits

#### Start Your Career

- Central Services Technician
- Sterile Processing Technician
- Instrument Specialist

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Dental Assistant
- Health & Wellness Promotion
- Health Information Management
- Medical Assistant
- Medical Coder
- Nursing
- Nursing Assistant
- Phlebotomy Technician
- Respiratory Therapy
- Surgical Technology





## SAMPLE FULL-TIME CURRICULUM OPTION

Term		17-20 credit
10501101	Medical Terminology ☑	3
10501107	Digital Literacy for Healthcare	2
31509309	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
31806311	Applied Microbiology	2
<b>-or-</b>		
10806197	Microbiology ☑	4
		<b>Total credits 17-20</b>

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

Please Note:

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

## 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
		<b>9-10 credit</b>
31509309	Medical Law, Ethics, and Professionalism	2
30534301	Central Service	5
31806311	Applied Microbiology	2
<b>-or-</b>		
10806197	Microbiology ☑	4
		<b>Total credits 17-20</b>

## 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### 10831104 ..... 3 credits

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## 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 Sterile Processing Technician program 305342*

## 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 2.6 and MMS\_1 and MMM\_1 or Accuplacer Reading Skills of 262 and QAS of 246 or ACT Math score of 19 and Reading score of 19 or College Math 10804107 or Intermediate Algebra with Applications 10804118 with a "C" or better, or General Chemistry 10806134, or General Biology 10806114, or Human Body in Health & Disease 31509302*

## Human Body in Health and Disease

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

Students learn to recognize human body structure and function in health and disease states. Students explore the causes, signs, and symptoms of diseases of the major body systems as well as the diagnostic procedures, usual treatment, prognosis, and prevention of diseases commonly diagnosed and treated in the medical office setting.

## Medical Law, Ethics, and Professionalism

**31509309..... 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 microbes. Addresses disease production, epidemiology, host defense mechanisms and the medical impact of microbes. Presents the role of microbes in the environment, industry, and biotechnology.

*Prerequisite: "C" or better in General Anatomy & Physiology 10806177 or General Biology 10806114 or Plant Biology 10806184*



# SURGICAL TECHNOLOGY

## Associate in Applied Science (AAS) Program Code: 10-512-1 Total Credits: 61

The Surgical Technology program at Mid-State prepares graduates to work as part of the surgical team in operating rooms, providing proper handling and use of equipment, assisting the surgeon during procedures, and ensuring patient safety. Students learn skills and techniques used in sterile processing. Training encompasses both classroom and lab instruction. You will gain clinical hands-on experience in surgery, ambulatory centers, sterile processing, 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

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  
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- Criminal Background Statement of  
Understanding and Release of  
Information Form
- Other: \_\_\_\_\_  
\_\_\_\_\_



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

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

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### SURGICAL TECHNOLOGY

Associate in Applied Science (AAS) • 61 Credits

#### Start Your Career

- Surgical Technologist (Clinical Setting, Operating Room, and Ambulatory Surgery Center)
- Vascular/Cath Lab Surgical Technologist

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Dental Assistant
- Health & Wellness Promotion
- Health Information Management
- Medical Assistant
- Medical Coder
- Nursing
- Nursing Assistant
- Phlebotomy Technician
- Respiratory Therapy
- Sterile Processing Technician

## PROGRAM OUTCOMES

Employers will expect you, as a Surgical Technology 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.

---

The Mid-State Technical College Surgical Technology 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

9355 113th St. N, #7709  
Seminole, FL 33775  
727.210.2350 • [www.caahep.org](http://www.caahep.org)

## ENTRY CRITERIA

To apply to the Surgical Technology 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-technology](http://mstc.edu/programs/surgical-technology) (available after completion of program application).
3. Submit the Technical Standards Form found at [mstc.edu/programs/surgical-technology](http://mstc.edu/programs/surgical-technology).
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 guaranteed course start date in core Surgical Technology Program courses (512-level classes):

- 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-technology](http://mstc.edu/programs/surgical-technology) 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.





## SAMPLE FULL-TIME CURRICULUM OPTION

Term		17 credits
10501101	Medical Terminology ☑	3
10512125	Intro to Surgical Technology	4
10512126	Surgical Tech Fundamentals 1	4
10512127	Exploring Surgical Issues	2
10806177	General Anatomy & Physiology ☑	4
Term		15 credits
10512128	Surgical Tech Fundamentals 2	4
10512129	Surgical Pharmacology	2
10512130	Surgical Skills Application	2
10806197	Microbiology ☑	4
10801136	English Composition 1 ☑ -or-	
10801195	Written Communication ☑	3
Term		16 credits
10512131	Surgical Interventions 1	4
10512132	Surgical Technology Clinical 1	3
10512133	Surgical Technology Clinical 2	3
10801198	Speech ☑ -or-	
10801196	Oral/Interpersonal Communication ☑	3
10809172	Introduction to Diversity Studies ☑ -or-	
10809166	Intro to Ethics: Theory & Practice ☑ -or-	
10809196	Introduction to Sociology ☑	3
Term		13 credits
10512135	Surgical Technology Clinical 3	3
10512136	Surgical Technology Clinical 4	3
10512142	Surgical Interventions II	4
10809198	Intro to Psychology ☑ -or-	
10809188	Developmental Psychology ☑	3
<b>Total credits 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/schedule](http://mstc.edu/schedule).

## SAMPLE PART-TIME CURRICULUM OPTION

Term		7 credits
10501101	Medical Terminology ☑	3
10806177	General Anatomy & Physiology ☑	4
Term		7 credits
10801136	English Composition 1 ☑ -or-	
10801195	Written Communication ☑	3
10806197	Microbiology ☑	4
Term		10 credits
10512125	Intro to Surgical Technology	4
10512126	Surgical Tech Fundamentals 1	4
10512127	Exploring Surgical Issues	2
Term		8 credits
10512128	Surgical Tech Fundamentals 2	4
10512129	Surgical Pharmacology	2
10512130	Surgical Skills Application	2
Term		10 credits
10512131	Surgical Interventions 1	4
10801198	Speech ☑ -or-	
10801196	Oral/Interpersonal Communication ☑	3
10809172	Introduction to Diversity Studies ☑ -or-	
10809166	Intro to Ethics: Theory & Practice ☑ -or-	
10809196	Introduction to Sociology ☑	3
Term		9 credits
10512132	Surgical Technology Clinical 1	3
10512133	Surgical Technology Clinical 2	3
10809198	Intro to Psychology ☑ -or-	
10809188	Developmental Psychology ☑	3
Term		10 credits
10512135	Surgical Technology Clinical 3	3
10512136	Surgical Technology Clinical 4	3
10512142	Surgical Interventions II	4
<b>Total credits 61</b>		

### MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **English Composition 1** ☑

**10801136 .....3 credits**

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

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

## **Exploring Surgical Issues**

**10512127 .....2 credits**

Explores a variety of issues related to surgical technology. Emphasis is placed is on becoming a professional member of the surgical team.

*Corequisites: Intro to Surgical Technology 10512125 and Surgical Tech Fundamentals 1 10512126*

## **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 31509302 with a "C" or better. Students are encouraged to bring transcripts for further evaluation if they do not meet these requirements.*

## **Introduction to Diversity Studies** ☑

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

This course introduces the study of diversity from a local to a global perspective using a holistic, interdisciplinary approach that encourages exploration and prepares students to work in a diverse environment. The course introduces basic diversity concepts, examines the impact of bias and power differentials among groups, explores the use of culturally responsive communication strategies, and compares forces that shape diversity in an international context.

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

## **Introduction 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, social organization, and workplace issues.

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

## **Intro to Ethics: Theory & Practice** ☑

**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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Intro to Surgical Technology**

**10512125..... 4 credits**

Provides the foundational knowledge of the occupational environment. Principles of sterilization and disinfection are learned. Surgical instruments are introduced. Preoperative patient care concepts are simulated. Lab practice is included.

*Prerequisites: Admission to Surgical Technology 105121; General Anatomy & Physiology 10806177 with a grade of "C" or better. 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.

## **Microbiology** ☑

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

Examines microbial structure, metabolism, genetics, growth and the relationship between humans and microbes. Addresses disease production, epidemiology, host defense mechanisms and the medical impact of microbes. Presents the role of microbes in the environment, industry, and biotechnology.

*Prerequisite: "C" or better in General Anatomy & Physiology 10806177 or General Biology 10806114 or Plant Biology 10806184*

# COURSE DESCRIPTIONS

## Oral/Interpersonal Communication ☑

**10801196** ..... **3 credits**

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

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

## Speech ☑

**10801198** ..... **3 credits**

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

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

## Surgical Interventions 1

**10512131** ..... **4 credits**

Provides the foundational knowledge of surgical core and specialty procedures. Examines the pathophysiology, diagnostic interventions, health sciences, and surgical techniques for a variety of procedures.

*Prerequisites: Surgical Tech Fundamentals 2 10512128 and Surgical Skills Application 10512130*

## Surgical Interventions II

**10512142** ..... **4 credits**

Expands knowledge of core and specialty surgical procedures by incorporating pathophysiology, diagnostic interventions, health sciences, and surgical techniques.

*Prerequisites: Surgical Interventions 1 10512131 and Surgical Technology Clinical 2 10512133*

## Surgical Pharmacology

**10512129** ..... **2 credits**

Basic study of drug classifications, care, and handling of drugs and solutions, application of mathematical principles in dosage calculations, terminology related to pharmacology, anesthesia, and drugs used in surgery.

*Prerequisites: Surgical Tech Fundamentals 1 10512126*

## Surgical Skills Application

**10512130** ..... **2 credits**

Provides a transition from the academic to the clinical setting. Learners integrate the surgical technologist skills as they apply to various surgical procedures.

*Corequisite: Surgical Tech Fundamentals 2 10512128*

## Surgical Tech Fundamentals 1

**10512126** ..... **4 credits**

Focuses on preparing the patient and operating room for surgery. Principles of sterile technique are emphasized as the student moves into the scrub role. Lab practice is included.

*Corequisite: Intro to Surgical Technology 10512125*

## Surgical Tech Fundamentals 2

**10512128** ..... **4 credits**

Focuses on enhancing surgical technology skills while functioning as a sterile team member. Lab is included.

*Prerequisites: Surgical Tech Fundamentals 1 10512126, Microbiology 10806197, Surgical Pharmacology 10512129, and Exploring Surgical Issues 10512127*

## Surgical Technology Clinical 1

**10512132** ..... **3 credits**

Apply 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.

*Prerequisites: Surgical Tech Fundamentals 2 10512128 and Surgical Skills Application 10512130*

## Surgical Technology Clinical 2

**10512133** ..... **3 credits**

Further experience in a clinical setting allows the student to continue to improve technical skills while accepting more responsibilities during surgical procedures.

*Prerequisites: Surgical Technology Clinical 1 10512132 and Surgical Skills Application 10512130*

## Surgical Technology Clinical 3

**10512135** ..... **3 credits**

Further experience in a clinical setting allows the student to continue to improve technical skills while accepting more responsibilities during surgical procedures.

*Prerequisite: Surgical Technology Clinical 2 10512133*

## Surgical Technology Clinical 4

**10512136** ..... **3 credits**

During this clinical course the student will function relatively independently. Serves as a transition from a student perspective to an employee by utilizing advanced skills for an entry level Surgical Technologist.

*Prerequisite: Surgical Technology Clinical 3 10512135*

## Written Communication ☑

**10801195** ..... **3 credits**

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

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



# UNIVERSITY TRANSFER- ASSOCIATE OF ARTS

**Associate of Arts (AA)**  
**Program Code: 20-800-1**  
**Total Credits: 60**

Students in the University Transfer-Associate of Arts 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.

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

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](https://mstc.edu/advising).

### CHECKLIST:

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

- Mid-State Technical College Application
- FAFSA ([www.fafsa.gov](http://www.fafsa.gov))
- 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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500 32nd Street North  
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### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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

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

## CERTIFICATE

### COMMUNICATION ESSENTIALS

Certificate • 9 Credits

### UNIVERSITY TRANSFER

Certificate • 12 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## ASSOCIATE OF ARTS (AA)

### UNIVERSITY TRANSFER-ASSOCIATE OF ARTS

Associate of Arts (AA) • 60 Credits

**Start Your Career**

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Edgewood College, Lakeland University, Marquette University, University of Minnesota-Duluth, UW-Eau Claire, UW-Green Bay, UW-Milwaukee, UW-Oshkosh, UW-River Falls, UW-Stevens Point, UW-Stout, UW-Superior, and Viterbo University.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- University Transfer-Associate of Science



## PROGRAM OUTCOMES

Employers will expect you, as a University Transfer-Associate of Arts graduate, to be able to:

- Communication: Demonstrate effective communication in diverse contexts using appropriate methods.
- Intellectual Acquisition of Knowledge: Demonstrate critical and ethical reasoning.
- Personal and Social Awareness: Demonstrate knowledge of life skills required of an effective member of a diverse and global community with increased responsibility for self-directed learning and personal wellness.
- Problem Solving: Use mathematical and scientific problem-solving processes.
- Environmental Awareness: Demonstrate a heightened awareness of our physical, chemical, and biological environment.

## 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### **10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## 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.

## PROGRAM CURRICULUM

### English (6 credits required)

### Speech (3 credits required)

### Humanities (12 credits required)

Must include courses in at least two disciplines: art, history, journalism/writing, literature, music, philosophy, theatre/film, world language, political science, and social science.

### Social Science (12 credits required)

Must include courses in at least two disciplines: anthropology, economics, geography, political science, psychology, sociology.

### Mathematics & Natural Science (10 credits required)

Trigonometry, college algebra, statistics, quantitative reasoning, elementary math education or higher, 3-4 credits required. Natural science - one lab course required.

### World Language (4 credits required)

May be met with one year of high school foreign language with a grade of "C" or better.

### Health/Wellness/Physical Education (1 credit required)

### Diversity & Ethnic Studies (3 credits required)

### Electives (Additional elective credits to attain 60 total credits)

Select any college transfer courses beyond the minimum requirements. One credit of health and PE beyond the required credit may be selected.

## ALL COURSES FOR UNIVERSITY TRANSFER

### English (6 credits required)

	credits
10801136 English Composition 1 ☑	3
20801223 English 2 ☑	3

### Speech (3 credits required)

	credits
10801196 Oral/Interpersonal Communication ☑	3
10801198 Speech ☑	3

- Students cannot take Oral/Interpersonal to fulfill their required Speech credit. It may be used as an elective

### Humanities (12 credits required)

10809122 Intro to American Government ☑	3
10809166 Introduction to Ethics: Theory & Application ☑	3
20801227 Creative Writing ☑	3
20801233 Children's Literature ☑	3
20801247 Contemporary World Literature ☑	3
20801204 Introduction to Literature ☑	3
20803211 US History to 1877 ☑	3
20803212 US History 1877 to Present	3
20805201 Music Appreciation ☑	3
20805280 Music in Film ☑	3
20809223 Introduction to World Religions ☑	3
20809226 Environmental Ethics	3
20809260 Introduction to Philosophy ☑	3

### Social Science (12 credits required)

	credits
10809103 Think Critically & Creatively ☑	3
10809172 Introduction to Diversity Studies ☑	3
10809188 Developmental Psychology ☑	3
10809195 Economics ☑	3
10809196 Intro to Sociology ☑	3
10809198 Intro to Psychology ☑	3
10809217 Race Class Gender	3
20809237 Abnormal Psychology ☑	3
20809254 Educational Psychology ☑	3
20809204 Marriage and Family ☑	3
20809287 Principles of Macroeconomics ☑	3
20809291 Principles of Microeconomics ☑	3

### Mathematics & Natural Science (10 credits required)

#### Mathematics (3-4 credits required)

	credits
10804118 Intermediate Algebra with Applications ☑	4
10804135 Quantitative Reasoning ☑	3
10804189 Introductory Statistics ☑	3
10804190 Calculus and Analytic Geometry 1 ☑	5
10804195 College Algebra with Applications ☑	3
10804196 Trigonometry with Applications ☑	3
20804227 Elementary Math Education 1	4
20804237 Elementary Math Education 2	4

### Natural Science (7 credits required)

One lab course is required.

10806112 Principles of Sustainability ☑	3
10806114 General Biology	4
10806134 General Chemistry ☑	4
10806143 College Physics 1	3
10806154 General Physics 1 ☑	4
10806177 General Anatomy & Physiology ☑	4
10806179 Advanced Anatomy & Physiology	4
10806189 Basic Anatomy	3
10806197 Microbiology ☑	4
20806215 Environmental Science	3

- Courses that have labs - 10806114, 10806134, 10806143, 10806154, 10806177, 10806179, 10806197, and 20806206

### World Language (4 credits required)

	credits
20802211 Spanish 1	4
20802212 Spanish 2	4

### Health/Wellness/PE (1 credit required)

	credits
10807205 The Well Traveler ☑	1
10807210 Environmental Wellness	1
20807202 Nutrition for Life ☑	1
20807203 Stress Management Fitness for Life ☑	1
20807204 Physical Fitness for Life ☑	1

### Diversity & Ethnic Studies (3 credits required)

#### Electives (Additional elective credits to attain 60 total credits)

Select other courses to fill in available credits. One additional credit of Health/Wellness/PE may be selected. If students satisfy the world language requirement by transferring in a full year of high school world language credits with a "C" or better, then they may need elective credits to satisfy the program credit requirement.

**For more information, visit [mstc.edu/programs/liberal-arts-arts](http://mstc.edu/programs/liberal-arts-arts)**

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

Please Note:

- Student schedules and program completion time may vary depending on course availability.
- Exact courses taken will vary significantly based on students' interests and transfer intentions.
- Graduation requirement of a 2.0 cumulative GPA.
- Electives are selected from courses not used to fulfill other requirements.
- Students are strongly encouraged to consult with the Academic Adviser before registering for courses. Some stipulations for transfer may apply.

#### MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## **Abnormal Psychology** ☒

**20809237** .....3 credits

The course addresses the foundations of abnormal psychology and psychological disorders, including their characteristics, possible causes, assessments, diagnostic processes, and treatments. The course includes examination of major historical and theoretical perspectives, research, sociocultural considerations, and elements of psychological wellness.

*Prerequisite: Intro to Psychology 10809198 with a grade of "C" or better*

## **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.*

## **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.

*Prerequisite: High School GPA of 2.6 and MMS\_1 or Accuplacer Reading Skills of 249 or ACT Reading score of 15*

## **Calculus & Analytic Geometry 1**

**10804190** .....5 credits

Designed for students of mathematics, science, and engineering. An introduction to the basic properties of limits, rate of change of functions, continuity, derivatives of algebraic and elementary transcendental functions, their products quotients and compositions, curve sketching, finding maxima and minima, and indefinite and definite integration with applications.

*Prerequisites: College Algebra with Applications 10804195 and Trigonometry with Applications 10804196 with a "C" or better*

## **Children's Literature** ☒

**20801233** .....3 credits

Introduces the forms, functions, and merits of literature for children. Students will read and evaluate both classic and contemporary texts for a variety of age levels. Readings, lecture, class discussion, and projects will also explore historical and cultural contexts for, and influences upon, children's literature. Special consideration will be given to diverse and multicultural works. Art and illustration will also be explored as storytelling tools.

*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading score of 253 and Writing of 262 or ACT Reading score of 20 or completion of College Reading and Writing 1 10831104 with a "C" or better*

## **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: ACT Math score of 22 or Trigonometry with Applications 10804196 or Intermediate Algebra with Applications 10804118 with a "C" or better*

## **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*

## **Contemporary World Literature** ☒

**20801247** .....3 credits

Contemporary World Literature presents a post-World War II overview of diverse and multicultural literature. Through readings in long and short fiction and poetry, students explore the way different cultures and writers see their internal and external worlds in relation to their sense of self. The primary focus will be on diverse and multicultural text analysis, seeking and challenging evidence of universal themes and human experience.

*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading score of 253 and Writing of 262 or ACT Reading score of 20 or completion of College Reading and Writing 1 10831104 with a "C" or better*

## **Creative Writing** ☒

**20801227** .....3 credits

Introduces and encourages the creative writing process as an avenue for individual expression. Students will read and respond to works of creative writing in various genres to determine their principles as well as how and why writers break formal conventions. Students will experiment with techniques for producing original work in both poetry and prose. Emphasis is on idea generation, collaborative feedback, and effective revision. This is a workshop-based course.

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

# COURSE DESCRIPTIONS

## 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Educational Psychology

### 20809254 .....3 credits

Explores the psychological theories of development and learning related to education and teaching. Course covers the unique diversity of students that we teach as well as exceptionalities. Students examine learning theory and instructional practice as well as issues of motivation and classroom management. Classroom planning and assessment methods and techniques are evaluated.

*Prerequisite: Intro to Psychology 10809198 or Developmental Psychology 10809188 with a "C" or better*

## Elementary Math Education 1

### 20804227 ..... 4 credits

Covers mathematics content necessary for prospective early childhood and elementary teachers. Topics include foundational and historical concepts from arithmetic and algebra.

*Prerequisite: High school GPA 2.6 and MMM\_2 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245*

## Elementary Math Education 2

### 20804237 ..... 4 credits

Includes concepts of proportionality, statistics and probability, plane geometry, the geometry of solids, and measurement.

*Prerequisite: High school GPA 2.6 and MMM\_2 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Intermediate Algebra with Applications 10804118 with a "C" or better*

## English Composition 1

### 10801136 .....3 credits

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

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

## English 2

### 20801223 .....3 credits

Students continue the study of academic writing to attain advanced writing and critical thinking skills. Students learn textual synthesis, analysis, advanced source integration, and rhetorical strategies.

*Prerequisite: English Composition 1 10801136 or Written Communication 10801195 with a "C" or better*

## Environmental Ethics

### 20809226 .....3 credits

An introduction to environmental ethics for students who have had little or no exposure to the philosophical issues surrounding the problems of nature. Problems to be discussed are endangered species, energy and pollution wilderness, environmental justice, world hunger, immigration and overpopulation, animal rights, and corporate obligations regarding the natural environment. Covers theoretical approaches and practical applications and provides a history of the development of our present ecological situations.

*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English or completion of College Reading and Writing 1 10831104 with a "C" or better*

## Environmental Science

### 20806215 .....3 credits

Develops an understanding of environmental concerns and current issues including water resources, total land use, air pollution, biocides, energy use, population, pollution, and health. Examines ecological, economic, historical, and philosophic views of issues.

## Environmental Wellness

### 10807210 ..... 1 credit

This course will explore the relationship between individuals and their environment and provide an overview of environmental wellness in relation to the impacts on human well-being. The student will focus on the individual's role in preserving and interacting with the environment to promote holistic health through sustainable interventions.

## 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 2.6 and MMS\_1 and MMM\_1 or Accuplacer Reading Skills of 262 and QAS of 246 or ACT Math score of 19 and Reading score of 19 or College Math 10804107 or Intermediate Algebra with Applications 10804118 with a "C" or better, or General Chemistry 10806134, or General Biology 10806114, or Human Body in Health & Disease 31509302*



# COURSE DESCRIPTIONS

## General Biology

**10806114** ..... 4 credits

Introduces general biological concepts and principles. Emphasis is on cell structure and function, genetics, evolution, and taxonomical relationships. Consideration is also given to taxonomy among the various kingdoms.

*Prerequisite: High School GPA of 2.6 and MMS\_1 or Accuplacer Reading Skills of 249 or ACT Reading score of 15*

## 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.

*Prerequisite: High School GPA of 2.6 or Accuplacer QAS of 246 or ACT of 19, or 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.*

## General Physics 1

**10806154** ..... 4 credits

Presents the applications and theory of basic physics principles. This course emphasizes problem solving, laboratory investigation, and applications. Topics include unit conversion and analysis, vectors, translational and rotational kinematics, translational and rotational dynamics, heat and temperature, and harmonic motion and waves.

*Corequisite: Trigonometry with Applications 10804196*

## 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 2.6 and MMM\_1 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Pre-Algebra 10834109 with a "C" or better*

## Introduction 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Introduction to Diversity Studies

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

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

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

## Introduction to Ethics: Theory and 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Introduction to Literature

**20801204** ..... 3 credits

Presents the major literary genres of poetry, fiction, nonfiction, and drama, and their distinct characteristics. Students will be introduced to relevant theoretical approaches and the influence of culture on a text's creation. Students will discuss, analyze, interpret, and write about literature. This course enhances appreciation of literature and prepares students for further literary study.

*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading score of 253 and Writing of 262 or ACT Reading score of 20 or completion of College Reading and Writing 1 10831104 with a "C" or better*

## Introduction to Philosophy

**20809260** ..... 3 credits

This course introduces the traditional divisions of philosophy and methods of philosophical inquiry as presented by ancient and modern philosophers. Includes an examination of human nature, reality and being, religion and the existence of God, knowledge and truth, moral values, and social and political philosophy. Students will develop thinking, reasoning, and argumentation skills to support their own philosophical perspectives and challenge the perspectives of others.

*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English or completion of College Reading and Writing 1 10831104 with a "C" or better*

# COURSE DESCRIPTIONS

## **Introduction 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Introduction 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, social organization, and workplace issues.

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

## **Introduction to World Religions** ☑

**20809223** .....**3 credits**

This course will familiarize students with the religious traditions of the world by providing a broad overview of major religions including Buddhism, Christianity, Confucianism, Hinduism, Islam, Judaism, and others. Indigenous religions and new religious movements will also be studied. An emphasis is placed on each religion's origins and historical development, main doctrines, teachings, ethics, sacred texts, and ways of worship.

*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English or completion of College Reading and Writing 1 10831104 with a "C" or better*

## **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 2.6 and MMM\_2 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better*

## **Marriage and Family** ☑

**20809204**.....**3 credits**

This course introduces the student to the sociological aspects of marriage and family life in contemporary American society. Emphasis is on the study of cognitive, emotional, and behavioral patterns associated with courtship, love, mate selection, sexuality, and marriage. It discusses life span development, balancing work and family, and parenting. This course is based on the premise that human attitudes, feelings, and behaviors are largely shaped and influenced by philosophy, gender, communication, and personal beliefs.

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

## **Microbiology** ☑

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

Examines microbial structure, metabolism, genetics, growth and the relationship between humans and microbes. Addresses disease production, epidemiology, host defense mechanisms and the medical impact of microbes. Presents the role of microbes in the environment, industry, and biotechnology.

*Prerequisite: "C" or better in General Anatomy & Physiology 10806177 or General Biology 10806114 or Plant Biology 10806184*

## **Music Appreciation** ☑

**20805201**.....**3 credits**

Discover how music is intertwined with the history, art, politics, religion, and culture of people from around the world and across the centuries. Students will learn to identify voices, instruments, and genres of music from the Middle Ages to today. Students will develop active listening skills and an understanding of how music, beyond one's personal taste, can be appreciated for its artistry and significance on human interconnectedness. Attendance at one live school, community, or professional musical performance is required.

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

## **Music in Film** ☑

**20805280** .....**3 credits**

Follows the development music and sound in film, from the beginning of the silent-movie era to the great film composers of the twentieth century and today. Students will explore the role and expression of music in film, learn about the fundamental elements of film music and composers, as well as develop a vocabulary for describing and assessing film music. Includes classroom discussion, evaluation of different compositional styles, and learning to listen critically to film score while viewing movies.

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

## **Nutrition for Life** ☑

**20807202** .....**1 credit**

Examines the nutrient requirements of healthy individuals, nutrient categories, and food sources as well as their characteristics in relation to physiological functions, metabolism and disease prevention.



# COURSE DESCRIPTIONS

## Oral/Interpersonal Communication ☑

**10801196** .....3 credits

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

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

## Physical Fitness for Life ☑

**20807204** .....1 credit

Examines the relationship of physical fitness and activity to healthy lifestyles and wellness. Students will access current level of fitness, then plan and implement a personal fitness program.

## Principles of Macroeconomics ☑

**20809287** .....3 credits

Macroeconomics explores the performance and behaviors of a free-market economy; specifically output, income, and employment and how forces act to shape these factors and determine their fluctuations. Government fiscal and monetary roles as well as the impact of international transactions on the domestic economy are studied. Balance is drawn between theory, analysis, and a critique of the institutions that characterize modern mixed-capitalist economies. Conflicting social goals and economic constraints provide the framework through which the macroeconomy is analyzed.

## Principles of Microeconomics ☑

**20809291** .....3 credits

This course introduces economic analysis of individual, business, and industry choices in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives to achieve economic objectives efficiently.

## Principles of Sustainability ☑

**10806112** .....3 credits

Prepares the student to develop sustainable literacy, analyze the interconnections among the physical and biological sciences and environmental systems, summarize the effects of sustainability on health and well-being, analyze connections among social, economic, and environmental systems, employ energy conservation strategies to reduce the use of fossil fuels, investigate alternative energy options, evaluate options to current waste disposal and recycling in the U.S., and analyze approaches used by your community to promote and implement sustainability.

## Quantitative Reasoning

**10804135** .....3 credits

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

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better*

## Race, Class, Gender

**10809217** .....3 credits

This course considers how race, class, gender, and sexuality, with roots in historical legacies of power, privilege, and oppression, continue to be constructed in a global context. Rather than analyzing race, class, gender, and sexuality as separate and distinct categories of difference, this course utilizes various theories to explore how these variables integrate, overlap, and intersect to affect individuals' and groups' lived experiences with structures of power. The course concludes with an examination of social movements and their role in constructing identity, challenging structural inequality, and creating social change.

*Prerequisite: Introduction to Diversity Studies 10809172*

## Spanish 1

**20802211** .....4 credits

For students beginning the study of Spanish. Emphasizes development of basic communicative skills through practice in listening, speaking, reading, and writing. Stresses vocabulary and grammar to enhance students' ability to speak and write in Spanish. Study of customs and values provides an increased awareness of Spanish speaking cultures. On completion students are expected to participate in uncomplicated conversations on everyday topics.

## Spanish 2

**20802212** .....4 credits

Enhances student ability to learn to read, write, understand, and speak Spanish.

*Prerequisite: Spanish 1 20802211 with a "C" or better*

## Speech ☑

**10801198** .....3 credits

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

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

# COURSE DESCRIPTIONS

## **Stress Management: Fitness for Life** ☑

**20807203** ..... **1 credit**

The course explores the nature of stress, determinant causes, the physiological and psychological reactions to stress and will introduce and implement physiological, cognitive, and behavioral stress management techniques.

## **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: Written Communication 10801195 with a grade of "C" or better*

## **The Well Traveler** ☑

**10807205** ..... **1 credit**

In this course the student will examine components of travel as it impacts their personal dimensions of health and wellness. The student will develop global citizenship skills by preparing for travel with an emphasis on maximizing opportunities that support individual well-being and the appreciation of growth through experiences. We will also explore interventions to ensure safety while traveling.

## **Think Critically and Creatively** ☑

**10809103** ..... **3 credits**

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

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

## **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: ACT Math score of 22 or Intermediate Algebra with Applications 10804118 with a "C" or better*

## **U.S. History 1877 to Present**

**20803212** ..... **3 credits**

Surveys U.S. political, social, and economic development from the post-Civil War era to the present. Emphasizes reading, writing, and discussion.

*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English or completion of College Reading and Writing 1 10831104 with a "C" or better*

## **U.S. History to 1877**

**20803211** ..... **3 credits**

Surveys U.S. political, social, and economic development from the pre-colonial era to the post-Civil War period. Emphasizes reading, writing, and discussion.

*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English or completion of College Reading and Writing 1 10831104 with a "C" or better*



# UNIVERSITY TRANSFER- ASSOCIATE OF SCIENCE

**Associate of Science (AS)**  
**Program Code: 20-800-2**  
**Total Credits: 60**

Students in the University Transfer-Associate of Science 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.

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

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](https://mstc.edu/advising).

### CHECKLIST:

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

- Mid-State Technical College Application
- FAFSA ([www.fafsa.gov](http://www.fafsa.gov))
- 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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### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

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- Transfer Credit
- Work and Life Experience

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## CERTIFICATE

### COMMUNICATION ESSENTIALS

Certificate • 9 Credits

### UNIVERSITY TRANSFER

Certificate • 12 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## ASSOCIATE OF SCIENCE (AS)

### UNIVERSITY TRANSFER-ASSOCIATE OF SCIENCE

Associate of Science (AS) • 60 Credits

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## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Edgewood College, Lakeland University, Marquette University, University of Minnesota-Duluth, UW-Eau Claire, UW-Green Bay, UW-Milwaukee, UW-Oshkosh, UW-River Falls, UW-Stevens Point, UW-Stout, UW-Superior, and Viterbo University.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- University Transfer-Associate of Arts

## PROGRAM OUTCOMES

Employers will expect you, as a University Transfer-Associate of Science graduate, to be able to:

- Communication: Demonstrate effective communication in diverse contexts using appropriate methods.
- Intellectual Acquisition of Knowledge: Demonstrate critical and ethical reasoning.
- Personal and Social Awareness: Demonstrate knowledge of life skills required of an effective member of a diverse and global community with increased responsibility for self-directed learning and personal wellness.
- Problem Solving: Use mathematical and scientific problem-solving processes.
- Environmental Awareness: Demonstrate a heightened awareness of our physical, chemical, and biological environment.

## 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

#### **10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## 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.

## PROGRAM CURRICULUM

### English (6 credits required)

### Speech (3 credits required)

### Humanities (6 credits required)

Must include courses in at least two disciplines: art, history, journalism/writing, literature, music, philosophy, theatre/film, world language, political science, and social science.

### Social Science (6 credits required)

Must include courses in at least two disciplines: anthropology, economics, geography, political science, psychology, sociology.

### Mathematics & Natural Science (20 credits required)

Mathematics at the level of college algebra, statistics, quantitative reasoning, or higher. Natural science includes two lab courses, one from each of two different science disciplines.

### World Language (4 credits required)

May be met with one year of high school foreign language with a grade of "C" or better.

### Health/Wellness/Physical Education (1 credit required)

### Diversity & Ethnic Studies (3 credits required)

### Electives (Additional elective credits to attain 60 total credits)

Select any college transfer courses beyond the minimum requirements. One credit of health and PE beyond the required credit may be selected.

## ALL COURSES FOR UNIVERSITY TRANSFER

### English (6 credits required)

	credits
10801136 English Composition 1 ☑	3
20801223 English 2 ☑	3

### Speech (3 credits required)

	credits
10801196 Oral/Interpersonal Communication ☑	3
10801198 Speech ☑	3

- Students cannot take Oral/Interpersonal to fulfill their required Speech credit. It may be used as an elective.

### Humanities (6 credits required)

10809122 Intro to American Government ☑	3
10809166 Introduction to Ethics: Theory & Application ☑	3
20801227 Creative Writing ☑	3
20801233 Children's Literature ☑	3
20801247 Contemporary World Literature ☑	3
20801204 Introduction to Literature ☑	3
20803211 US History to 1877 ☑	3
20803212 US History 1877 to Present ☑	3
20805201 Music Appreciation ☑	3
20805280 Music in Film ☑	3
20809223 Introduction to World Religions ☑	3
20809226 Environmental Ethics	3
20809260 Introduction to Philosophy ☑	3

### Social Science (6 credits required)

	credits
10809103 Think Critically & Creatively ☑	3
10809172 Introduction to Diversity Studies ☑	3
10809188 Developmental Psychology ☑	3
10809195 Economics ☑	3
10809196 Intro to Sociology ☑	3
10809198 Intro to Psychology ☑	3
10809217 Race Class Gender	3
20809237 Abnormal Psychology ☑	3
20809254 Educational Psychology ☑	3
20809204 Marriage and Family ☑	3
20809287 Principles of Macroeconomics ☑	3
20809291 Principles of Microeconomics ☑	3

### Mathematics & Natural Science (20 credits required)

Mathematics at the level of College Algebra, Statistics, Quantitative Reasoning, or higher

10804118 Intermediate Algebra with Applications ☑	4
10804135 Quantitative Reasoning ☑	3
10804189 Introductory Statistics ☑	3
10804190 Calculus and Analytic Geometry 1 ☑	5
10804195 College Algebra with Applications ☑	3
10804196 Trigonometry with Applications ☑	3
20804227 Elementary Math Education 1	4
20804237 Elementary Math Education 2	4

Natural Science (include two lab courses, one from each of 2 different science disciplines)

10806112 Principles of Sustainability ☑	3
10806114 General Biology	4
10806134 General Chemistry ☑	4
10806143 College Physics 1 ☑	3
10806154 General Physics 1	4
10806177 General Anatomy & Physiology ☑	4
10806179 Advanced Anatomy & Physiology	4
10806189 Basic Anatomy	3
10806197 Microbiology ☑	4
20806215 Environmental Science	3

- Courses that have labs – 10806114, 10806134, 10806143, 10806154, 10806177, 10806179, 10806197, and 20806206

### World Language (4 credits required)

	credits
20802211 Spanish 1	4
20802212 Spanish 2	4

### Health/Wellness/PE (1 credit required)

	credits
10807205 The Well Traveler ☑	1
10807210 Environmental Wellness	1
20807202 Nutrition for Life ☑	1
20807203 Stress Management Fitness for Life ☑	1
20807204 Physical Fitness for Life ☑	1

### Diversity & Ethnic Studies (3 credits required)

#### Electives (Additional elective credits to attain 60 total credits)

Select other courses to fill in available credits. One additional credit of Health/Wellness/PE may be selected. If students satisfy the world language requirement by transferring in a full year of high school world language credits with a "C" or better, then they may need elective credits to satisfy the program credit requirement.

For more information, visit [mstc.edu/programs/liberal-arts-arts](http://mstc.edu/programs/liberal-arts-arts)

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

Please Note:

- Student schedules and program completion time may vary depending on course availability.
- Exact courses taken will vary significantly based on students' interests and transfer intentions.
- Graduation requirement of a 2.0 cumulative GPA.
- Electives are selected from courses not used to fulfill other requirements.
- Students are strongly encouraged to consult with the Academic Adviser before registering for courses. Some stipulations for transfer may apply.

#### MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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



# COURSE DESCRIPTIONS

## **Abnormal Psychology** ☒

**20809237** .....3 credits

The course addresses the foundations of abnormal psychology and psychological disorders, including their characteristics, possible causes, assessments, diagnostic processes, and treatments. The course includes examination of major historical and theoretical perspectives, research, sociocultural considerations, and elements of psychological wellness.

*Prerequisite: Intro to Psychology 10809198 with a grade of "C" or better*

## **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.*

## **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.

*Prerequisite: High School GPA of 2.6 and MMS\_1 or Accuplacer Reading Skills of 249 or ACT Reading score of 15*

## **Calculus & Analytic Geometry 1**

**10804190** .....5 credits

Designed for students of mathematics, science, and engineering. An introduction to the basic properties of limits, rate of change of functions, continuity, derivatives of algebraic and elementary transcendental functions, their products quotients and compositions, curve sketching, finding maxima and minima, and indefinite and definite integration with applications.

*Prerequisites: College Algebra with Applications 10804195 and Trigonometry with Applications 10804196 with a "C" or better*

## **Children's Literature** ☒

**20801233** .....3 credits

Introduces the forms, functions, and merits of literature for children. Students will read and evaluate both classic and contemporary texts for a variety of age levels. Readings, lecture, class discussion, and projects will also explore historical and cultural contexts for, and influences upon, children's literature. Special consideration will be given to diverse and multicultural works. Art and illustration will also be explored as storytelling tools.

*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading score of 253 and Writing of 262 or ACT Reading score of 20 or completion of College Reading and Writing 1 10831104 with a "C" or better*

## **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: ACT Math score of 22 or Trigonometry with Applications 10804196 or Intermediate Algebra with Applications 10804118 with a "C" or better*

## **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*

## **Contemporary World Literature** ☒

**20801247** .....3 credits

Contemporary World Literature presents a post-World War II overview of diverse and multicultural literature. Through readings in long and short fiction and poetry, students explore the way different cultures and writers see their internal and external worlds in relation to their sense of self. The primary focus will be on diverse and multicultural text analysis, seeking and challenging evidence of universal themes and human experience.

*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading score of 253 and Writing of 262 or ACT Reading score of 20 or completion of College Reading and Writing 1 10831104 with a "C" or better*

## **Creative Writing** ☒

**20801227** .....3 credits

Introduces and encourages the creative writing process as an avenue for individual expression. Students will read and respond to works of creative writing in various genres to determine their principles as well as how and why writers break formal conventions. Students will experiment with techniques for producing original work in both poetry and prose. Emphasis is on idea generation, collaborative feedback, and effective revision. This is a workshop-based course.

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

# COURSE DESCRIPTIONS

## **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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Educational Psychology**

### **20809254** .....3 credits

Explores the psychological theories of development and learning related to education and teaching. Course covers the unique diversity of students that we teach as well as exceptionalities. Students examine learning theory and instructional practice as well as issues of motivation and classroom management. Classroom planning and assessment methods and techniques are evaluated.

*Prerequisite: Intro to Psychology 10809198 or Developmental Psychology 10809188 with a "C" or better*

## **Elementary Math Education 1**

### **20804227** ..... 4 credits

Covers mathematics content necessary for prospective early childhood and elementary teachers. Topics include foundational and historical concepts from arithmetic and algebra.

*Prerequisite: High school GPA 2.6 and MMM\_2 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245*

## **Elementary Math Education 2**

### **20804237** ..... 4 credits

Includes concepts of proportionality, statistics and probability, plane geometry, the geometry of solids, and measurement.

*Prerequisite: High school GPA 2.6 and MMM\_2 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Intermediate Algebra with Applications 10804118 with a "C" or better*

## **English Composition 1** ☒

### **10801136** .....3 credits

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

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

## **English 2** ☒

### **20801223** .....3 credits

Students continue the study of academic writing to attain advanced writing and critical thinking skills. Students learn textual synthesis, analysis, advanced source integration, and rhetorical strategies.

*Prerequisite: English Composition 1 10801136 or Written Communication 10801195 with a "C" or better*

## **Environmental Ethics**

### **20809226** .....3 credits

An introduction to environmental ethics for students who have had little or no exposure to the philosophical issues surrounding the problems of nature. Problems to be discussed are endangered species, energy and pollution wilderness, environmental justice, world hunger, immigration and overpopulation, animal rights, and corporate obligations regarding the natural environment. Covers theoretical approaches and practical applications and provides a history of the development of our present ecological situations.

*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English or completion of College Reading and Writing 1 10831104 with a "C" or better*

## **Environmental Science**

### **20806215** .....3 credits

Develops an understanding of environmental concerns and current issues including water resources, total land use, air pollution, biocides, energy use, population, pollution, and health. Examines ecological, economic, historical, and philosophic views of issues.

## **Environmental Wellness**

### **10807210** ..... 1 credit

This course will explore the relationship between individuals and their environment and provide an overview of environmental wellness in relation to the impacts on human well-being. The student will focus on the individual's role in preserving and interacting with the environment to promote holistic health through sustainable interventions.

## **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 2.6 and MMS\_1 and MMM\_1 or Accuplacer Reading Skills of 262 and QAS of 246 or ACT Math score of 19 and Reading score of 19 or College Math 10804107 or Intermediate Algebra with Applications 10804118 with a "C" or better, or General Chemistry 10806134, or General Biology 10806114, or Human Body in Health & Disease 31509302*

# COURSE DESCRIPTIONS

## General Biology

**10806114** ..... 4 credits

Introduces general biological concepts and principles. Emphasis is on cell structure and function, genetics, evolution, and taxonomical relationships. Consideration is also given to taxonomy among the various kingdoms.

*Prerequisite: High School GPA of 2.6 and MMS\_1 or Accuplacer Reading Skills of 249 or ACT Reading score of 15*

## 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.

*Prerequisite: High School GPA of 2.6 and MMS\_1 and MMM\_1 or Accuplacer Reading Skills of 262 and QAS of 246 or ACT Math score of 19 and Reading score of 19 or College Mathematics 10804107 or Intermediate Algebra with Applications 10804118 with a "C" or better*

## General Physics 1

**10806154** ..... 4 credits

Presents the applications and theory of basic physics principles. This course emphasizes problem solving, laboratory investigation, and applications. Topics include unit conversion and analysis, vectors, translational and rotational kinematics, translational and rotational dynamics, heat and temperature, and harmonic motion and waves.

*Corequisite: Trigonometry with Applications 10804196*

## 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 2.6 and MMM\_1 or Accuplacer Arithmetic of 263 and QAS 234 or ACT Math score of 19 or QAS of 245 or Pre-Algebra 10834109 with a "C" or better*

## Introduction 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Introduction to Diversity Studies

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

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

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

## Introduction to Ethics: Theory and 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## Introduction to Literature

**20801204** ..... 3 credits

Presents the major literary genres of poetry, fiction, nonfiction, and drama, and their distinct characteristics. Students will be introduced to relevant theoretical approaches and the influence of culture on a text's creation. Students will discuss, analyze, interpret, and write about literature. This course enhances appreciation of literature and prepares students for further literary study.

*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading score of 253 and Writing of 262 or ACT Reading score of 20 or completion of College Reading and Writing 1 10831104 with a "C" or better*

## Introduction to Philosophy

**20809260** ..... 3 credits

This course introduces the traditional divisions of philosophy and methods of philosophical inquiry as presented by ancient and modern philosophers. Includes an examination of human nature, reality and being, religion and the existence of God, knowledge and truth, moral values, and social and political philosophy. Students will develop thinking, reasoning, and argumentation skills to support their own philosophical perspectives and challenge the perspectives of others.

*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English or completion of College Reading and Writing 1 10831104 with a "C" or better*

# COURSE DESCRIPTIONS

## **Introduction 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 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English*

## **Introduction 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, social organization, and workplace issues.

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

## **Introduction to World Religions** ☑

**20809223** .....**3 credits**

This course will familiarize students with the religious traditions of the world by providing a broad overview of major religions including Buddhism, Christianity, Confucianism, Hinduism, Islam, Judaism, and others. Indigenous religions and new religious movements will also be studied. An emphasis is placed on each religion's origins and historical development, main doctrines, teachings, ethics, sacred texts, and ways of worship.

*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English or completion of College Reading and Writing 1 10831104 with a "C" or better*

## **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 2.6 and MMM\_2 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better*

## **Marriage and Family**

**20809204**.....**3 credits**

This course introduces the student to the sociological aspects of marriage and family life in contemporary American society. Emphasis is on the study of cognitive, emotional, and behavioral patterns associated with courtship, love, mate selection, sexuality, and marriage. It discusses life span development, balancing work and family, and parenting. This course is based on the premise that human attitudes, feelings, and behaviors are largely shaped and influenced by philosophy, gender, communication, and personal beliefs.

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

## **Microbiology** ☑

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

Examines microbial structure, metabolism, genetics, growth and the relationship between humans and microbes. Addresses disease production, epidemiology, host defense mechanisms and the medical impact of microbes. Presents the role of microbes in the environment, industry, and biotechnology.

*Prerequisite: "C" or better in General Anatomy & Physiology 10806177 or General Biology 10806114 or Plant Biology 10806184*

## **Music Appreciation** ☑

**20805201**.....**3 credits**

Discover how music is intertwined with the history, art, politics, religion, and culture of people from around the world and across the centuries. Students will learn to identify voices, instruments, and genres of music from the Middle Ages to today. Students will develop active listening skills and an understanding of how music, beyond one's personal taste, can be appreciated for its artistry and significance on human interconnectedness. Attendance at one live school, community, or professional musical performance is required.

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

## **Music in Film** ☑

**20805280** .....**3 credits**

Follows the development music and sound in film, from the beginning of the silent-movie era to the great film composers of the twentieth century and today. Students will explore the role and expression of music in film, learn about the fundamental elements of film music and composers, as well as develop a vocabulary for describing and assessing film music. Includes classroom discussion, evaluation of different compositional styles, and learning to listen critically to film score while viewing movies.

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

## **Nutrition for Life** ☑

**20807202** .....**1 credit**

Examines the nutrient requirements of healthy individuals, nutrient categories, and food sources as well as their characteristics in relation to physiological functions, metabolism and disease prevention.



# COURSE DESCRIPTIONS

## Oral/Interpersonal Communication ☑

**10801196** .....3 credits

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

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

## Physical Fitness for Life ☑

**20807204** .....1 credit

Examines the relationship of physical fitness and activity to healthy lifestyles and wellness. Students will access current level of fitness, then plan and implement a personal fitness program.

## Principles of Macroeconomics ☑

**20809287** .....3 credits

Macroeconomics explores the performance and behaviors of a free-market economy; specifically output, income, and employment and how forces act to shape these factors and determine their fluctuations. Government fiscal and monetary roles as well as the impact of international transactions on the domestic economy are studied. Balance is drawn between theory, analysis, and a critique of the institutions that characterize modern mixed-capitalist economies. Conflicting social goals and economic constraints provide the framework through which the macroeconomy is analyzed.

## Principles of Microeconomics ☑

**20809291** .....3 credits

This course introduces economic analysis of individual, business, and industry choices in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives to achieve economic objectives efficiently.

## Principles of Sustainability ☑

**10806112** .....3 credits

Prepares the student to develop sustainable literacy, analyze the interconnections among the physical and biological sciences and environmental systems, summarize the effects of sustainability on health and well-being, analyze connections among social, economic, and environmental systems, employ energy conservation strategies to reduce the use of fossil fuels, investigate alternative energy options, evaluate options to current waste disposal and recycling in the U.S., and analyze approaches used by your community to promote and implement sustainability.

## Quantitative Reasoning

**10804135** .....3 credits

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

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer QAS 241 or ACT Math score of 19 or Pre-Algebra 10834109 or College Math 10804107 with a "C" or better*

## Race, Class, Gender

**10809217** .....3 credits

This course considers how race, class, gender, and sexuality, with roots in historical legacies of power, privilege, and oppression, continue to be constructed in a global context. Rather than analyzing race, class, gender, and sexuality as separate and distinct categories of difference, this course utilizes various theories to explore how these variables integrate, overlap, and intersect to affect individuals' and groups' lived experiences with structures of power. The course concludes with an examination of social movements and their role in constructing identity, challenging structural inequality, and creating social change.

*Prerequisite: Introduction to Diversity Studies 10809172*

## Spanish 1

**20802211** .....4 credits

For students beginning the study of Spanish. Emphasizes development of basic communicative skills through practice in listening, speaking, reading, and writing. Stresses vocabulary and grammar to enhance students' ability to speak and write in Spanish. Study of customs and values provides an increased awareness of Spanish speaking cultures. On completion students are expected to participate in uncomplicated conversations on everyday topics.

## Spanish 2

**20802212** .....4 credits

Enhances student ability to learn to read, write, understand, and speak Spanish.

*Prerequisite: Spanish 1 20802211 with a "C" or better*

## Speech ☑

**10801198** .....3 credits

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

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

# COURSE DESCRIPTIONS

## **Stress Management: Fitness for Life** ☑

**20807203** ..... **1 credit**

The course explores the nature of stress, determinant causes, the physiological and psychological reactions to stress and will introduce and implement physiological, cognitive, and behavioral stress management techniques.

## **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: Written Communication 10801195 with a grade of "C" or better*

## **The Well Traveler** ☑

**10807205** ..... **1 credit**

In this course the student will examine components of travel as it impacts their personal dimensions of health and wellness. The student will develop global citizenship skills by preparing for travel with an emphasis on maximizing opportunities that support individual wellbeing and the appreciation of growth through experiences. We will also explore interventions to ensure safety while traveling.

## **Think Critically and Creatively** ☑

**10809103** ..... **3 credits**

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

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

## **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: ACT Math score of 22 or Intermediate Algebra with Applications 10804118 with a "C" or better*

## **U.S. History 1877 to Present**

**20803212** ..... **3 credits**

Surveys U.S. political, social, and economic development from the post-Civil War era to the present. Emphasizes reading, writing, and discussion.

*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English or completion of College Reading and Writing 1 10831104 with a "C" or better*

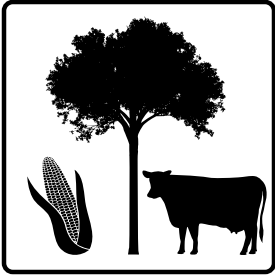
## **U.S. History to 1877**

**20803211** ..... **3 credits**

Surveys U.S. political, social, and economic development from the pre-colonial era to the post-Civil War period. Emphasizes reading, writing, and discussion.

*Prerequisite: High School GPA of 2.6 and MMR and MMW or Accuplacer Reading Skills of 236 and Writing of 237 or ACT of 15 Reading/16 English or completion of College Reading and Writing 1 10831104 with a "C" or better*





# UTILITY TREE TRIMMER

## Technical Diploma Program Code: 10-001-4 Total Credits: 16

The Utility Tree Trimmer program is a one-year technical diploma embedded in the Arborist Technician associate degree. Students are trained in introductory electrical awareness and safety, electrical hardware identification, tree pruning, chainsaw use, climbing and related aerial tree work, tree identification, pesticide handling and application, and tree biology. Teamwork and crew leadership are also emphasized. The program includes hands-on exploration and learning, and many classes are outdoors. Our unique aerial component ensures students gain experience while working safely in trees.

**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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# CAREER PATHWAY • BEGIN AT ANY POINT

HIGH SCHOOL STUDENT

COLLEGE TRANSFER

RETURNING ADULT

## CREDIT FOR PRIOR LEARNING AND EXPERIENCE

### CREDIT FOR PRIOR LEARNING AND EXPERIENCE

- Certifications and Licenses
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- Transfer Credit
- Work and Life Experience

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

## TECHNICAL DIPLOMA

### UTILITY TREE TRIMMER

Technical Diploma • 16 Credits

#### Start Your Career

- Utility Arborist
- Tree Trimmer
- Pruner

## ASSOCIATE IN APPLIED SCIENCE (AAS)

### ARBORIST TECHNICIAN

Associate in Applied Science (AAS) • 60-61 Credits

#### Start Your Career

- Arborist (commercial, utility, government)
- Landscape Contractor
- Plant Health Care Technician
- Apprenticeship

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

Arizona State University, Bellevue University, Colorado State University Global, Concordia University, Franklin University, Grand Canyon University (GCU), Lakeland University, Milwaukee School of Engineering (MSOE), Mount Mary University (MMU), Northern Michigan University, University of Maryland Global, University of Phoenix, UW-Green Bay, UW-Oshkosh, UW-Stevens Point, UW-Stevens Point at Marshfield, UW-Stout, UW-Whitewater, Western Governors University, and Wisconsin Private-Nonprofit Universities/Colleges.

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Agribusiness Agronomy Technician
- Agribusiness Science & Technology
- Farm Operation

### APPRENTICESHIP OPPORTUNITIES

- Arborist Apprenticeship

## PROGRAM OUTCOMES

Employers will expect you, as a Utility Tree Trimmer graduate, to be able to:

- Identify woody plants by common and scientific name.
- Apply tree biology for arboricultural maintenance practices.
- Adhere to industry safety 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 are notified of TSA reporting in the final few courses in 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 is recommended to be completed prior to obtaining 12 credits and is a graduation requirement unless you receive an exemption from your program advisor.

## ADDITIONAL COURSES AS NEEDED

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

### College Reading and Writing 1

**10831104 ..... 3 credits**

Provides learners with opportunities to develop and expand reading and writing skills to prepare for college-level academic work. Students will employ critical reading strategies to improve comprehension, analysis, and retention of texts. Students will apply the writing process to produce well-developed, coherent, and unified written work.

### 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.

## SAMPLE FULL-TIME CURRICULUM OPTION

Term		8 credits
10001118	Landscape Plant Identification ☑	2
10001124	Arborist Skills Introduction	2
10001133	Chainsaw Safety and Operation	2
10001173	Pruning for Structure ☑	2
<b>Term</b>		
10001102	Plant Health Care Applicator ☑	2
10001108	Electric Systems & Safety in Arboriculture	1
10001110	Tree Biology	2
10001125	Arboriculture Operations 1	2
10001150	Workplace Communication in Arboriculture	1
		<b>Total credits 16</b>

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

Please Note:

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

# COURSE DESCRIPTIONS

## **Arboriculture Operations 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.

*Prerequisites: Arborist Skills Introduction 10001124 and Pruning for Structure 10001173*

## **Arborist Skills Introduction**

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

A hands-on introduction to the basic techniques employed by arborists engaged in performing aerial tree care operations. Topics include canopy access methods, arborist gear usage, safety considerations/risk recognition, and knot selection.

## **Chainsaw Safety and Operation**

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

This course will familiarize students with common chainsaw practices employed within the arboricultural 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.

## **Electric Systems & Safety in Arboriculture**

**10001108 .....1 credit**

Students will gain familiarity with electrical distribution and transmission system hardware identification. Industry safety best practices and standards related to performing tree work near energized conductors will be explored.

## **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.

## **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.

## **Pruning for Structure**

**10001173 .....2 credits**

Focuses on the art and science of tree pruning. Topics include tree structure, introductory biology, pruning cuts, and young tree training. Students will gain hands-on experience performing tree pruning.

## **Tree Biology**

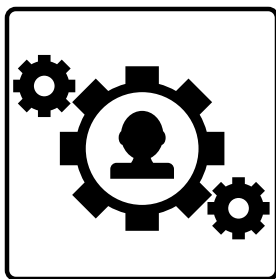
**10001110 .....2 credits**

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.

## **Workplace Communication in Arboriculture**

**10001150 .....1 credit**

This course introduces students to the key concepts of effective and impactful communications in the arboriculture industry. Students will investigate the diversity of commonalities and differences among people and how they relate to improving personal and organizational effectiveness at work.



# WELDING

## Technical Diploma Program Code: 31-442-1 Total Credits: 28-29

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, 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.

Mid-State's Welding program courses prepare students for numerous state and national certifications. None is required to complete the program; there are additional costs for testing/certification. The College does not guarantee its curriculum matches the requirements for preparation, examinations, or licensure for other states.

**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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Form(s): \_\_\_\_\_
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Where: \_\_\_\_\_  
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- Work and Life Experience

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## CERTIFICATE

### GAS METAL ARC WELDING (GMAW)

Certificate • 6 Credits

For more information and additional opportunities, visit [mstc.edu/career-accelerator](https://mstc.edu/career-accelerator).

## TECHNICAL DIPLOMA

### WELDING

Technical Diploma • 28-29 Credits

#### Start Your Career

- Construction Welder
- Fabricator Maintenance Welder
- Production Line Welder
- Apprenticeship

## BACHELOR'S DEGREE

### BACHELOR'S DEGREE OPTIONS

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

## OTHER OPTIONS

### RELATED PROGRAMS

- Advanced Manufacturing Technology
- Industrial Mechanical Technician
- Manufacturing Operations Management
- Metal Fabrication
- Precision Machining Technician
- Stainless Steel Welding

### APPRENTICESHIP OPPORTUNITIES

- Ironworker Apprenticeship





## SAMPLE FULL-TIME CURRICULUM OPTION

Term	14-15 credits
10442111 Intermediate GMAW/FCAW	3
10457119 Fabrication Fundamentals 1	1
31442311 Weld Testing for GMAW & FCAW	1
31442313 Gas Metal Arc Welding: Introduction	3
31442315 Inspections and Testing in Welding	1
31442317 Print Reading for Welding	1
31442320 Welding Foundations 1	1
31462318 Safety for Industrial Trades	1
32420320 Math for Manufacturing	2
<b>-or-</b>	
10804107 College Mathematics	3

Term	14 credits
10442102 Intermediate GTAW (TIG) <b>-or-</b>	
30442105 Intermediate TIG (Stainless)	2
10442103 Advanced GTAW (TIG)	
<b>-or-</b>	
30442106 Advanced TIG (Stainless)	
<b>-or-</b>	
10442115 Welding Fabrication Techniques	2
10457120 Fabrication Fundamentals 2	1
31442314 Gas Tungsten Arc Welding: Introduction <b>-or-</b>	
30442104 Basic TIG (Stainless)	2
31442316 Metallurgy for Welding	1
31442319 Shielded Metal Arc Welding: Introduction	2
31442321 Welding Foundations 2	1
31442322 Robotic Welding	2
31442412 Weld Testing for SMAW & GTAW	1

**Total credits 28-29**

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

Please Note:

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

## SAMPLE PART-TIME CURRICULUM OPTION

Term	6 credits
10457119 Fabrication Fundamentals 1	1
31442313 Gas Metal Arc Welding: Introduction	3
31442320 Welding Foundations 1	1
31462318 Safety for Industrial Trades	1

Term	7 credits
10442102 Intermediate GTAW (TIG) <b>-or-</b>	
30442105 Intermediate TIG (Stainless)	2
10457120 Fabrication Fundamentals 2	1
31442314 Gas Tungsten Arc Welding: Introduction <b>-or-</b>	
30442104 Basic TIG (Stainless)	2
31442316 Metallurgy for Welding	1
31442321 Welding Foundations 2	1

Term	8-9 credits
10442111 Intermediate GMAW/FCAW	3
31442311 Weld Testing for GMAW & FCAW	1
31442315 Inspections and Testing in Welding	1
31442317 Print Reading for Welding	1
32420320 Math for Manufacturing	2
<b>-or-</b>	
10804107 College Mathematics	3

Term	7 credits
10442103 Advanced GTAW (TIG)	
<b>-or-</b>	
30442106 Advanced TIG (Stainless)	
<b>-or-</b>	
10442115 Welding Fabrication Techniques	2
31442319 Shielded Metal Arc Welding: Introduction	2
31442322 Robotic Welding	2
31442412 Weld Testing for SMAW & GTAW	1

**Total credits 28-29**

### MULTIPLE MEASURES

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

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

**Multiple Measures Math 1 (MMM\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school math (Algebra 1 or equivalent) with a "C" or better

**Multiple Measures Math 2 (MMM\_2):** High school GPA of 2.6 and successful completion of 2.0 credits of high school math including Algebra 1 and Algebra 2 with a "C" or better

**Multiple Measures Science 1 (MMS\_1):** High school GPA of 2.6 and successful completion of 1.0 credits of high school lab science course with a "C" or better

**Multiple Measures Science 2 (MMS\_2):** High school GPA of 2.6 and successful completion of 1.0 credits of high school chemistry with a "C" or better

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

# COURSE DESCRIPTIONS

## Advanced GTAW (TIG)

**10442103 .....2 credits**

Students learn complete penetration stainless steel pipe welds in the 5G and 6G positions.

*Corequisite: Intermediate GTAW (TIG) 10442102*

## Advanced TIG (Stainless)

**30442106 .....2 credits**

Students learn advanced GTAW processes through the completion of stainless steel pipe weldments in the 5G and 6G positions.

*Corequisite: Intermediate TIG (Stainless) 30442105*

## Basic TIG (Stainless)

**30442104 .....2 credits**

An introduction to the gas tungsten arc welding (GTAW) process commonly known as TIG. Topics include study and application of necessary safety and care of equipment and supplies. The student develops skills with the common production welding joints and materials all completed on stainless steel.

## College Mathematics

**10804107 .....3 credits**

This course is designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

*Prerequisite: High School GPA of 2.6 and MMM\_1 or Accuplacer Arithmetic of 250 and QAS 234 or ACT Math score of 17 or Pre-Algebra 10834109 with a "C" or better*

## Gas Metal Arc Welding: Introduction

**31442313 .....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.

## Gas Tungsten Welding: Introduction

**31442314 .....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.

## 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.

## 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: Introduction 31442313*

## 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: Gas Tungsten Arc Welding: Introduction 31442314*

## Intermediate TIG (Stainless)

**30442105.....2 credits**

Intermediate GTAW weldments created in the horizontal and vertical positions on stainless steel. Pulsed current is applied to stainless steel weldments. Complete penetration groove welds in stainless steel are practiced and evaluated.

*Corequisite: Basic TIG (Stainless) 30442104.*

# COURSE DESCRIPTIONS

## 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 Precision Machining Technician program 314209, Welding program 314421, Gas Tungsten Arc Welding (Stainless Steel) program 304427, or consent of instructor*

## Metallurgy for Welding

**31442316 .....1 credit**

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.

## Print Reading for Welding

**31442317 .....1 credit**

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.

## Robotic Welding

**31442322 .....2 credits**

An introduction into the operation, setup and uses for robots in the welding industry. Students will learn simple teach pendant techniques, perform CNC basics for making programs and utilizing welding knowledge for proper setup of the robots. Students will perform multiple functions to produce quality weldments performed by the robot.

## Safety for Industrial Trades

**31462318 .....1 credit**

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.

## Shielded Metal Arc Welding: Introduction

**31442315 .....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.

## Weld Testing for GMAW & FCAW

**31442311 .....1 credit**

Learners will execute weldments, in multiple positions, leading to bend tests for the GMAW and FCAW processes. Weldments will be certified and conducted to AWS (American Welding Society) standards, meeting requirements for Wisconsin Department of Safety and Professional Services certification. Upon successful completion of bend tests, learners will choose one process to submit for certification.

## Weld Testing for SMAW & GTAW

**31442412 .....1 credit**

Learners will execute weldments, in multiple positions, leading to bend tests for the SMAW and GTAW processes. Weldments will be certified and conducted to AWS (American Welding Society) standards, meeting requirements for Wisconsin Department of Safety and Professional Services certification. Upon successful completion of bend tests, learners will choose one process to submit for certification.

## 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.

## Welding Foundations 1

**31442320 .....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 Foundations 2

**31442321 .....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.



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### **Mission**

Mid-State Technical College transforms lives through the power of teaching and learning.

### **Vision**

Mid-State Technical College is the educational provider of first choice for its communities.



Published: April 2024



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Mid-State does not discriminate on the basis of race, color, national origin, sex, disability, or age in its program, activity, or employment. The following person has been designated to handle inquiries regarding the nondiscrimination policies:  
Vice President - Human Resources; 500 32nd Street North, Wisconsin Rapids, WI 54494; 715.422.5325 • AAEO@mstc.edu. 4/2024