



# AUTOMOTIVE MAINTENANCE TECHNICIAN

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

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

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

### ACADEMIC ADVISOR

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

### CHECKLIST:

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

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



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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

### 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 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

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

## SAMPLE FULL-TIME CURRICULUM OPTION

Term	15 credits
10457119 Fabrication Fundamentals 1	1
31442320 Welding Foundations 1	1
31442321 Welding Foundations 2	1
32404307 Suspension & Steering Systems ☑	5
32404308 Braking Systems-Automotive ☑	5
32404340 Intro to Electricity for the Automotive Industry ☑	1
32404375 Service Practices in Automotive Industry ☑	1

Term	12 credits
32404311 Electrical Systems-Auto	5
32404324 Engine Repair	5
32404330 Applied Fluid Power ☑	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:

## SAMPLE PART-TIME CURRICULUM OPTION

Term	7 credits
32404307 Suspension & Steering Systems ☑	5
32404375 Service Practices in Automotive Industry ☑	1
32404340 Intro to Electricity for the Automotive Industry ☑	1

Term	7 credits
32404311 Electrical Systems-Auto	5
32404330 Applied Fluid Power ☑	2

Term	7 credits
31442320 Welding Foundations 1	1
31442321 Welding Foundations 2	1
32404308 Braking Systems-Automotive ☑	5

Term	6 credits
10457119 Fabrication Fundamentals 1	1
32404324 Engine Repair	5

**Total credits 27**

# 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.