Automotive Technology, Mechanical Emphasis

2026-27 Program Handbook

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METROPOLITAN COMMUNITY COLLEGE
LONGVIEW | AUTOMOTIVE INSTITUTE

Automotive Technology, Mechanical Emphasis Student Handbook

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1. Introduction and Program Overview

1.1 Message from the Program Director

Welcome to MCC's Automotive Technology program, Mechanical Emphasis. Our program is committed to preparing you for a high-demand, high-skill future in the automotive industry through hands-on training, expert instruction, and a supportive learning environment.

Our testing equipment is state-of-the-art. Our facility is bright, spacious and stocked with tools, equipment and components. We keep a fleet of more than 40 late-model cars for students to train on. Our reputation is solid: area employers know and respect our program. They come to us for the best entry-level technicians.

1.2 Purpose of the Handbook

This handbook is your main resource for program guidelines, expectations, resources, and contacts, guiding you from admission to graduation.

1.3 Program Accreditation Information

MCC's Automotive Technology program is accredited at the Master Automotive Service Technology (MAST) level by the ASE Education Foundation. Our instructors are ASE Master Certified Technicians, ensuring the highest industry standards in your education.

1.4 Description of the Program and Areas of Study

The program offers A.A.S. degrees and certificates in Mechanical Emphasis, Automotive Service, Maintenance and Light Repair. You will gain experience in diagnostics, repair, maintenance, and advanced technology through classroom and hands-on lab courses.

1.5 Program Learning Outcomes

1. Use critical thinking skills to develop proper strategies to diagnose and repair all major vehicle systems and determine if those repairs were successful using appropriate tools, testing equipment, and measuring equipment.

2. Demonstrate the ability to locate and utilize technical information to accurately and proficiently perform vehicle diagnostics and repair in accordance with automotive industry standards.
3. Generate automotive repair documents that list the customer's concern, explain the diagnostic process used to determine the cause of the customer's concern, and summarize the process of correcting the concern.
4. Locate and abide by all OSHA, EPA and Right-to-Know laws and elaborate how these laws protect employees and the environment.
5. Strategize professional growth in automotive industry by creating effective job seeking skills, understanding employer expectations and ethical work practice, and successfully securing and maintaining all Automotive Service Excellence (ASE) credentialing.

1.6 Career Pathways

Graduates of the Automotive Technology - Mechanical Emphasis program are prepared for careers such as:

- Automotive Service Technician
- Brake and Front-End Technician
- Engine Repair Specialist
- Drive Train Technician
- Entry-Level Mechanic in dealerships, independent shops, or fleet maintenance
- Further advancement to roles like Shop Foreman or Service Advisor with additional experience

Opportunities exist in automotive repair shops, dealerships, manufacturing, and related fields, with potential for entrepreneurship in mobile repair services.

2. Admission and Enrollment

2.1 Program Eligibility Requirements

Students must meet MCC's general admission criteria.

- 6.10013 DP Transfer Credit
- 6.10014 DP Academic Forgiveness
- 6.10015 DP Credit for Prior Learning

2.2 Program Application Process

To apply:

1. Submit an online application to MCC via the Admissions portal at mcckc.edu/apply.
2. Provide official high school/GED transcripts.
3. Complete placement testing (if required) in math, English, and reading.
4. Meet with an academic advisor to discuss program fit and create an education plan.
5. Deadlines: Fall semester applications due by August 1; Spring by January 1. Early application is encouraged due to limited lab space.

There is no additional application process required to be a student in the Automotive Technology program—Mechanical Emphasis.

3. Faculty and Staff Directory and other Key Offices

3.1 Instructor Contact Information, Office Hours, and Availability

- Heather Hale, Automotive Technology Instructor, heather.hale@mcckc.edu, see syllabus for office hours and availability.
- Travis Shaw, Automotive Technology Instructor, travis.shaw@mcckc.edu, see syllabus for office hours and availability.
- David Patience, Automotive Technology Instructor, David.patience@mcckc.edu, see syllabus for office hours and availability.
- Peter Eskew, Automotive Technology Instructor, Peter.Eskew@mcckc.edu, see syllabus for office hours and availability

3.2 Staff Contact Information

- Gail Gibson, Automotive Administrative Coordinator gail.gibson@mcckc.edu, 816-604-2054
- Debbie Beard, Automotive Academic Advisor, Debbie.beard@mcckc.edu

3.3 Contact Information for Key Offices

- Registrar's Office: registrar@mcckc.edu, (816) 604-2400
- Financial Aid Office: financialaid@mcckc.edu, (816) 604-1110
- Career Services: careerservices@mcckc.edu, (816) 604-2220
- Disability Support Services: Keith.Kaster@mcckc.edu, (816) 604-2204

4. Student Support Services

4.1 Advising

For Automotive specific Advising please contact Debbie Beard. Debbie.Beard@mcckc.edu.

4.2 Career Services

MCC's Career Services offices provide a network to students and alumni to provide personalized assistance and successful partnerships. *https://mcckc.edu/career-center/*

Please contact Kacey Breitbach, Career Services Coordinator at kasey.breitbach@mcckc.edu, (816) 604-2380.

4.3 Counseling Services

MCC Counseling Services is available to discuss success strategies and personal concerns. Counseling Services are free to MCC students. Call (816) 604-1000 to schedule an appointment. Students can also receive free mental health support at any time through Wolf Wellness.

4.4 Tutoring and Academic Support

Learning resources are available to students at the Longview campus at the Learning Center, which includes a writing lab, a math lab, and individual tutoring. Contact lv.learningcenter@mcckc.edu for more information.

- 7.40020 DR Academic Intervention

4.5 Financial Aid and Scholarship Opportunities

MCC uses Scholarship Universe as a platform for students to search and apply for thousands of scholarship opportunities. Look for a link to Scholarship Universe on your Canvas Home Page.

- 7.25020 BP Satisfactory Academic Progress of Financial Aid Recipients
- 7.25020 DP Satisfactory Academic Progress of Financial Aid Recipients
- 7.25050 DP Satisfactory Academic Progress of Veterans Benefits Recipients
- 7.30000 BP Student Financial Aid

5. Academic Policies and Expectations

5.1 Academic Integrity and Code of Conduct

Students are expected to follow the MCC Student Code of Conduct in behavior and in academic integrity. Instructors will include instructions about how students can use artificial intelligence and other learning aids in individual classes.

The program prohibits all forms of academic dishonesty, including:

1. Plagiarism – the intentional use of the ideas or words of another as one's own in a paper or other academic assignment.
2. Cheating during examinations, whether by copying from a fellow student or by using information in the form of unauthorized aids brought to the examination.
3. The submission of work for any assignment that has been prepared by another student.
4. Submission of a single paper to fulfill requirements in two courses without prior approval of the instructors of both courses.

5. Using a false name or signing the name of another individual without proper authorization in connection with any course work.

If objective evidence exists indicating that a student has practiced academic dishonesty, the following may occur:

1. If objective evidence for academic dishonesty exists, the instructor may require the paper, assignment or examination be repeated; lower the grade for this work; assign a grade of F to this work or assign a grade of F for the course.
2. The instructor will notify the student of a meeting to discuss the alleged academic dishonesty, the proposed penalty and that failure to respond to this notification will make the instructor's decision final.
3. If a grade of F is assigned for the course, the instructor will notify the dean responsible for instructional services and the division chair, in writing, within two (2) business days after the scheduled meeting with the student.
4. If, in the opinion of the instructor, the alleged academic dishonesty supports disciplinary options, other than a grade of F, the instructor will report the incident to the dean responsible for instructional services within five (5) business days after the meeting with the student. The dean of instruction will ensure that the dean of students is notified of the instructor's concerns.

More information can be found through the MCC Student Code of Conduct

- 6.10010 BP Academic Standards
- 6.10011 DP Grading Standards, Coursework and Final Examination
- 6.10012 DP Grade Change
- 6.10014 DP Academic Forgiveness
- 7.20000 BP Student Rights and Responsibilities
- 7.35010 BP Code of Student Conduct
- 7.35010 DP Code of Student Conduct
- 7.40010 BP Freedom Due Process and Disciplinary Action

5.2 AI Usage

Individual instructors may have different policies about how artificial intelligence is to be used in their classes. Seek out information in the syllabus.

- Policy in process

5.3 Student Attendance and Participation Expectations

Students are responsible for attending classes as required by their instructors and are responsible for officially withdrawing from classes. MCC regulations state that an instructor may with-

draw a student from class after a consecutive absence equating to 15% of the total class time, or after total absences equating to 33% of the total class time. An instructor may choose to enforce a stricter attendance policy. If so, you will be notified of this policy by the instructor at the beginning of the semester. An instructor may grant an exception to this policy after holding a conference with a student.

Individual instructors may have more strict attendance and participation policies. Look for this information in each course syllabus.

- 6.10017 DP Withdrawal and Audit Enrollment Status
- 7.30050 DP Medical Discretionary Withdrawal
- 7.35020 DR Student Attendance

5.4 Student Complaint and Grievance Procedures

All instructional complaints should be first addressed directly with the instructor. If the issue is not resolved, the next stage is to contact the Division Chair. The Division Chair for the Automotive Technology Program is Dr. Melissa Eaton. and can be contacted at Melissa.Eaton@mcckc.edu, (816) 604-2310. If the Division Chair is unable to resolve a complaint, the student may submit a written request for Dean's review to the Dean of Instructional Services, Dr. Sheryl Farnan.

- 7.20300 DR Student Complaints
- 7.20300 OP Student Complaints
- 7.20400 DR Student Rights and Privacy
- 7.20400 OP Student Rights and Privacy
- 7.40030 BP Status of Suspended or Expelled Student

5.5 Grading Policies and Standards

Grading standards and policies are unique to each course and instructor. Please check the syllabus.

- 6.10012 DP Grade Change

5.6 Non-Discrimination and Accessibility Policies

MCC, in keeping with the requirements of Title IX of the Education Amendments Act of 1972 and Section 504 of the Rehabilitation Act of 1973, does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender identity, age, ancestry, national origin, or disability. The district actively follows a policy of nondiscrimination in the aforementioned areas in regard to all employment and retention of students.

Federal and State Law, as well as MCC's Board of Trustee policy, prohibit sexual harassment. If you feel you, as a student, have been subjected to sexual harassment or to any of the above-mentioned forms of discrimination, contact the Dean of Student Development at your campus for further information.

For more information visit Office of Civil Rights.

Metropolitan Community College (MCC) is committed to ensuring equal access to all qualified students with disabilities in accordance with the Americans with Disabilities Act (ADA). If you have a disability which may impact your ability to access or participate in any aspect of my class, please contact the campus Disability Support Services (DSS) Coordinator at your campus. The DSS Coordinator will work with you to determine what disability documentation/information is needed in order to provide accommodations. Accommodations are determined on an individualized basis and may take some time to put in place, so early notification to DSS is helpful. More information is available at Disability Support Services. https://mcckc.edu/disability-services/

- 7.30020 BP Non-Discrimination
- 7.30030 BP Non-Discrimination and Harassment Student
- 7.30030 DP Non-Discrimination and Harassment Student
- 7.30035 BP Sex Discrimination and Sexual Harassment Student
- 7.30035 DP Sex Discrimination and Sexual Harassment Student
- 7.20100 DR Disability Support Services
- 7.20100 OP Disability Support Services
- 7.20200 DR Service Animals and Emotional Support Animals
- 7.20200 OP Service Animals and Emotional Support Animals

6. Curriculum and Course Descriptions

6.1 Program and Course Requirements and Credit Hours

Please see the current degree and certificate programs on the MCC website.

- The Automotive Technology – Mechanical emphasis Associate of Applied Science degree is a 68-74 credit hour degree.
- The Automotive Technology Certificate program is 50 credit hours.
- The Maintenance and Light Repair Certificate program is 16-18 credit hours.

6.2 Pre-requisite Courses

There are no pre-requisite courses required before starting in the Automotive Technology program.

6.3 Required Core Courses

AUTO 150 – Automotive Engine Repair. This course covers the history, theory of operation, diagnosis, and repair of automotive gasoline and light-duty diesel engines. The student will receive instruction on engine maintenance and repair including methods, tools and procedures required to properly recondition engine assemblies. Reconditioning of engine assemblies and components include cylinder head and valve service, piston and ring service, block and bearing service. This course emphasizes precision measuring and engine mechanical systems diagnosis

AUTO 166 – Automotive Electrical Systems. This course incorporates a study of the theory, construction, and repair of modern automotive electrical systems. Operational theory, testing and repair of batteries, charging systems, starting systems, lighting systems, wiring and accessories will be stressed. Practice in the use of test equipment to diagnose vehicle electrical systems will be covered in detail.

AUTO 170 – Automotive Braking Systems. History, theory of operation, and current service procedures on drum and disc brakes systems. Includes power assist systems and anti-lock brake systems.

AUTO 172 – Automotive Suspension and Steering. History, theory and service of front and rear suspension and steering systems. Includes steering gear, rack and pinion steering, power assist and power assist. Extensive coverage of four-wheel alignment, tire and wheel balance.

AUTO 174 – Manual Drivetrain and Axles. This course incorporates the theory of operation and service procedures of manual drive trains and axles including drivelines, constant velocity (CV) joints, manual transmissions and transaxles, differentials and clutches. Noise, vibration, and harshness (NVH) will be covered in this course.

AUTO 264 – Automotive Air Conditioning. This course incorporates history, theories of operation, diagnosis, and repair of various types of automotive air conditioners, and cabin heating systems. Practice using refrigerant identification and reclaiming equipment. Students will have the opportunity to become certified to purchase and handle refrigerants.

AUTO 272 – Automatic Transmissions and Transaxles. This course incorporates history, theories of operation, testing, diagnosis and repair of automatic transmissions and transaxles. Hydraulic theory, torque multiplication factor, and planetary gear set operation will be covered in detail. Proper disassembly and reassembly procedures will be emphasized.

AUTO 276 – Automotive Engine Performance. This course incorporates the history, theories of operation, diagnosis, and repair of fuel systems, emissions systems and electronic engine management systems. Ignition system theory and secondary system checks will be covered. This course will emphasize published diagnostics procedures.

AUTO 279 – Automotive Electronic Systems. This course builds on previous learning in automotive electrical systems. Electronic principles and theories of operation are explored in detail. Application, diagnosis and repair of automotive computer management systems will be covered.

AUTO 280 – Diagnosis and Repair. This course employs a lecture/laboratory approach to the use of diagnostic equipment pertaining to drivability issues, network communications, and computerized management of all vehicular systems. This course will concentrate on development of diagnostic processes without published procedures. This course is designed to increase problem solving and critical thinking skills.

6.4 Elective Options

None.

7. Work-Based Learning Requirements

7.1 Work-Based Learning (i.e., Internships, Clinical Experiences, Apprenticeships, Co-op Programs)

This program does not have a work-based learning component.

7.2 Eligibility and Application Process

Not Applicable.

7.3 Expectations and Responsibilities of Students

Not applicable.

7.4 Evaluation Process of Work-Based Learning Sites

Not applicable.

8. Industry Specific Expectations

8.1 Rules and Ethics

Each course and instructor will have dress code and safety equipment requirements outlined in the syllabus.

8.2 HIPAA Confidentiality

Not applicable.

8.4 Legal Standards

Not applicable.

8.5 Professional Standards

Each course and instructor will have dress code and safety equipment requirements outlined in the syllabus.

9. Facilities, Equipment, and Safety Guidelines

9.1 Lab and Classroom Expectations

Students in the program will uphold the following Personal Standards:

- Reports to work daily on time; able to take directions and motivated to accomplish the task at hand.
- Dresses appropriately and uses language and manners suitable for the workplace.
- Maintains personal hygiene appropriate for the workplace.
- Meets and maintains employment eligibility criteria, such as drug/alcohol-free status, clean driving record, etc.
- Demonstrates honesty, integrity, and reliability.

Students in the program will uphold the following Work Habits and Ethic:

- Complies with workplace policies/laws, including proper and responsible use of personal electronic devices.
- Contributes to the success of the team, assists others and requests help when needed.
- Works well with all customers and coworkers.
- Negotiates solutions to interpersonal and workplace conflicts.
- Contributes ideas and initiative.
- Follows directions.
- Communicates effectively, both in writing and verbally, with customers and coworkers.
- Reads and interprets workplace documents; writes clearly and concisely.
- Analyzes and resolves problems that arise in completing assigned tasks.
- Organizes and implements a productive plan of work.
- Uses scientific, technical, engineering and mathematics (STEM) principles and reasoning to accomplish assigned tasks.
- Identifies and addresses the needs of all customers, providing helpful, courteous, and knowledgeable service and advice as needed.
- Respectful of tools and property used in school and workplace environment.
- Contributes to an inclusive environment where every coworker and customer feels welcomed, heard, and valued.

9.2 Equipment Usage and Maintenance

N/A

9.3 Safety Policies and Emergency Procedures

Students and instructors should comply with personal and environmental safety practices associated with clothing; eye protection; hand tools; power equipment; proper ventilation; and the handling, storage, and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations.

Equipment and tools used in the training program must have all shields, guards, and other safety devices in place, operable, and used. Safety glasses must be worn by all students, instructors, and visitors in the lab/shop area while lab is in session.

10. Industry Certifications and Licensure

10.1 Available Certifications through the Program

N/A

10.2 State and National Licensing Requirements

N/A

10.3 Certification Exam Preparation Resources

N/A

11. Graduation and Program Completion Requirements

11.1 Graduation Checklist

N/A

11.2 Capstone Projects or Final Assessments

N/A

12. Appendix & Additional Resources

12.1 Forms and Templates

N/A

12.2 Academic Calendars

Students are encouraged to review important add, drop or withdraw dates in the Academic Calendar.

12.3 Frequently Asked Questions (FAQs)

N/A

12.4 Note Pages

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