## ENGINEERING, MANUFACTURING AND INDUSTRIAL TECHNOLOGY AUTOMOTIVE TECHNOLOGY

PROGRAM LOCATION LCC West Campus

SESSION OFFERED AM/PM

AVERAGE LECTURE DAYS/WEEK 2-3 days

AVERAGE LAB DAYS/WEEK 2-3 days

HOMEWORK Weekly

REQUIRED READING College level textbooks & workbooks Less than 25 pages/week



EXPLORE THE POSSIBILITIES. FAST TRACK YOUR FUTURE. Students in this program will cover the four National Institute for Automotive Service Excellence requirements for training in auto service and brakes. An introduction to basic shop procedures is also provided. Students must have a valid driver's license in order to operate vehicles in the lab. Students in this program will also study steering and suspension and electrical theory including the diagnosis and repair of malfunctioning circuits. If college level work is attained, and Section A and Section B are completed, students may earn up to 17 LCC credits over the course of two years. Successful students will have the opportunity to take the State of Michigan certification exam in Brakes, Steering and Suspension and Electrical.

#### **EXPECTED STUDENT OUTCOMES**

- Safety in the work environment
- Engine maintenance and diagnostics operations
- Service management
- · Hydraulic system diagnosis and repair
- Drum brake diagnosis and repair
- Disc brake diagnosis and repair
- Power assist units
- · Wheel bearings, parking brakes and electrical components
- · Standard and anti-lock brake system diagnosis and repair
- · Suspension systems diagnosis and repair
- Front and rear suspensions
- · Wheel alignment diagnosis, adjustment and repair
- Wheel and tire diagnosis and repair
- Basic electrical/electronic theory
- Automotive battery, starter and charging systems theory, operation and diagnosis
- Access wiring diagrams
- Diagnose and repair malfunctioning circuits in vehicles
- Advanced lighting systems and electronic instrumentation
- · Electronic chassis control and accessory systems
- Passive restraint systems

#### CAREERS

Auto Technician Auto Mechanic Diesel Mechanic Service Technician Master Mechanic

#### **MEDIAN WAGE**

\$18.50 hourly

EMPLOYMENT OUTLOOK Average, 5-9%

## CERTIFICATIONS

State of MI Brakes Certification State of MI Suspension Certification State of MI Electrical Certification

### SUCCESS INDICATORS

Strong science interest, mechanically inclined, kinesthetic (handson learning), ability to apply written to practical information, deductive reasoning, critical thinking, willingess to work hard, time management skills.

#### **STUDENT LEADERSHIP**

Students have the opportunity for leadership, competition, and community service through membership in SkillsUSA.

### **17 COLLEGE CREDITS**

Year 1 AUTM 102 – Automotive Safety AUTM 111 – Automotive Electrical I AUTM 151 – Steering & Suspension Year 2 AUTM 131 – Automotive Engine Repair AUTM 141 – Braking Systems & ABS

# ACADEMIC RIGOR 3

## CAPITAL REGION TECHNICAL EARLY COLLEGE

Students enrolled in this program may choose to participate in the Capital Region Technical Early College (CRTEC). Capital Region Technical Early College is a high school-to-college program where students start in grade 11 and leave in grade 13 with a college degree or certification. The program gives students relevant career-related experience.

