AUTOMOTIVE SERVICE TECHNOLOGY

Program Description
The Automotive Service Technology program prepares graduates for a career as a technician in automotive dealerships as well as in fleet, franchised, and independent repair facilities. The program combines classroom, lab, and, in some cases, internship experience in all aspects of automotive diagnosis and repair. Students use hands-on, applied learning with high-tech tools and systems to acquire knowledge and skills which foster the ability to continuously adapt to an ever-changing technology.

Arts & Sciences curriculum supports the technical skills students learn as well as enhances students’ oral and written communication skills and critical thinking ability. All instructors are National Institute for Automotive Service Excellence (ASE) certified technicians.

The National Automotive Technicians Education Foundation (NATEF), the branch of ASE which certifies and accredits automotive education programs, has accredited Dunwoody’s Automotive Service Technology program in Master Automobile Service Technology—the highest level of achievement recognized by NATEF.

Dunwoody College of Technology: a non-profit, private technical college since 1914.

<table>
<thead>
<tr>
<th>Credential Earned</th>
<th>AAS Degree</th>
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<tr>
<td>Classes Offered</td>
<td>Day</td>
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<tr>
<td>Length of Program</td>
<td>2 years (4 semesters)</td>
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<tr>
<td>Available Starts</td>
<td>Fall Semester; Spring Semester</td>
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<tr>
<td>Accreditation</td>
<td>NATEF</td>
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<tr>
<td>Further Study</td>
<td>Bachelor’s Completion Degree in Applied Management</td>
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Degree Requirements
AUTO1110 General Skills & Engine Fundamentals
AUTO1120 Brakes, Steering & Suspensions
AUTO1130 Electrical & Electronic Principles
AUTO1210 Engine Repair
AUTO1220 Automatic Transmissions
AUTO1230 Accessories, Heating & Air Conditioning
AUTO2110 Engine Performance
AUTO2210 Drivetrain
AUTO2220 Production
AUTO2230 Auto Internship

Natural Sciences/Mathematics Elective
Communications Elective
Social Sciences Elective
Interpersonal Communication
Humanities Elective
Diversity Elective

Common Job Titles
Automotive Service Technician
General Service Technician
Light Duty Technician
Master Technician

Recent Employers
Metro Transit
Audi Minneapolis
Morrie’s Minnetonka Subaru
Lloyd’s Automotive
Superior Service Center

Salary Data
$40,940* Annual Average Salary

Placement Rate
100%**

How to Apply
dunwoody.edu
612.374.5800
info@dunwoody.edu

**Data reflects placement for AY2015-16 graduates indicating employment in their field of study within 6 months following graduation.
Full data calculations are available for review during College open hours Monday through Friday 8 a.m. to 4 p.m. CT at Career Services or contact careerservices@dunwoody.edu.

AY2017-SB Revised: 4.4.17
**Course Descriptions**

**AUTO1110 General Skills & Engine Fundamentals, 3 cr.**
Use tools and measuring instruments. Identify fasteners and fittings, remove damaged fasteners, fabricate brake lines. Research service procedures using automotive information systems. Disassemble and assemble component engines. Describe engine parts, systems, and operation.

**AUTO1120 Brakes, Steering & Suspensions, 4 cr.**
Examine theory of design and principles of operation, diagnosis and repair procedures of automotive brake, steering and suspension systems. Practice performing service procedures, four-wheel alignments, tire and wheel service.

**AUTO1130 Electrical & Electronic Principles, 7 cr.**
Examine theory and principles of: Ohm’s law, circuit principles, magnetism, electromagnetism, batteries, induction, cranking motors, charging systems, ignition systems, basic electronics including sensors and semiconductors. Use digital multimeters and wiring schematics to trace, test, and diagnose circuits. Disassemble, inspect, test, and reassemble starters and alternators. On-vehicle diagnosis of battery, starting, and charging systems. Introduction to scan tools.

**AUTO1210 Engine Repair, 3 cr.**
Examine design and operating principles of engine systems. Disassemble, inspect, measure, and reassemble a complete running engine validated by proper operation when work is completed.

**AUTO1220 Automatic Transmissions, 3 cr.**
Fundamentals of planetary gears, theory of operation of components and controls. Disassemble, inspect, and reassemble component automatic transmissions and transaxles. Practice maintenance and general testing procedures, pressure testing, electronic scan tool testing. Effective use of service information is emphasized.

**AUTO1230 Accessories, Heating & Air Conditioning, 6 cr.**
Wiring circuit interpretation, accessory operation, lighting system design, circuit tracing, and service procedures. Diagnose and repair lighting, instrumentation, accessories, and air-bags. Heating/air conditioning component operation and physics. Control system diagnosis, service, repair procedures, and pressure diagnosis. On vehicle procedures for recovery/recycling equipment.

**AUTO2110 Engine Performance, 13 cr.**
Analysis of the theory of operation, design, diagnosis, and repair procedures of engine control and computer systems. Examine emerging engine performance and vehicle propulsion technologies. Use standard and computerized tune-up test equipment to make a complete performance analysis and/or diagnosis of specific problems to determine the work needed on vehicles. Repairs are made to restore the vehicle's performance, emissions, and fuel economy to as near as possible to original factory and EPA standards.

**AUTO2210 Drivetrain, 3 cr.**
Theory of operation, inspection, diagnosis, disassembly and reassembly of transmissions, transaxles and transfer cases. Design, principles of operation, diagnosis, troubleshooting and repair procedures for drive axles, drive shafts, universal joints, differentials and clutches. Oxyacetylene torch procedures.

**AUTO2220 Production, 8 cr.**
Practical shop experience in all aspects of automotive repair on customer’s vehicle. Fundamentals of shop management, repair order writing, parts procurement, and customer relations. Principles of NVH (noise, vibration, and harshness) diagnosis, and advanced chassis control systems.

**AUTO2230 Auto Internship, 8 cr.**
Supervised training in repairing various problems with customer vehicles while working at an automotive repair facility. Need department director approval; must follow approved guidelines listed in the internship packet. This course can be taken in lieu of AUTO2220 Production.

**COMM1150 Interpersonal Communication, 3 cr.**
Analyze the process of interpersonal communication as a dynamic and complex system of interactions. Integrate interpersonal communication theory into work, family and social relationships. Apply fundamental tools needed to provide quality customer service. Decision making, problem solving, and managing customer service processes are emphasized.