



Automotive Service Excellence (ASE) Modern Automotive Service Technician (MAST) Certification Online – T101 400 hours

Course teaches the construction, operation, service, and repair of automobiles, and prepares students for the ASE certification exams. ASE combines the benefits of classroom training and the convenience of computer-based learning, our comprehensive and easy to understand course details foundational principles and progresses gradually to complex diagnostic and service procedures. This sophisticated course blends proven training methodologies and educational tools not found in books or static classes, to ensure knowledge retention.

What is the ASE?

Until the early 1970s, consumers had no way to distinguish between incompetent and competent mechanics. In response to this need, the independent, non-profit National Institute for Automotive Service Excellence (ASE) was established in 1972. ASE's mission is to improve the quality of vehicle repair and service through the testing and certification of repair and service professionals.

At present, about 420,000 professionals hold current certifications. They work in every segment of the automotive service industry: car and truck dealerships, independent garages, fleets, service stations, franchises, and more.

What are the Benefits of ASE Certification?

The benefits are both personal and professional:

- By taking and passing tough, national competency exams the student will have the pride of knowing that they are among the elite in their profession.
- They will have the credentials to prove their competence to others: their coworkers, their employer, their prospective employer, and their customers.
- They can expect increased respect from their peers and their employer.
- Once certified, they will receive an ASE shoulder insignia, wallet I.D. card, and a wall certificate.

How do you become Certified?

There are eight tests in the Automobile Technician certification series. If you pass one or more tests, and have at least two years of hands-on working experience in automotive repair, then you will become certified as an ASE Automobile Technician. If you pass all eight tests in the series and meet the experience requirement, you will earn the certificate of Master Automobile Technician. (Appropriate vocational training may be substituted for up to one year of work experience.) You do not have to have the two years experience to take the exams, however you will not receive your certification until you meet this requirement.



What are the Prerequisites?

There are none for the courses or testing. (Two years hands on for Certification) The Modern Automotive Service Technician (MAST) online class teaches the construction, operation, service, and repair of automobiles, and prepares students for the ASE certification exams. Combining the benefits of classroom training and the convenience of computer-based learning, our comprehensive and easy to understand course details foundational principles and progresses gradually to complex diagnostic and service procedures. This sophisticated course blends proven training methodologies and educational tools not found in books or static classes, to ensure knowledge retention.

Features include:

- Video Introductions Explaining Critical Learning Elements
- Resizable Graphs and Tables
- Lesson Review Quizzes and Exercises
- Rich Illustrations
- Interactive Exercises and Animations
- Certification Practice Exams
- High Resolution Photos
- Notes, Tips, Cautions and Warnings
- Duff's Garage - Interactive Case Studies Preparing You For Real World Situations
- 3D Cutaways
- Demonstration Activities
- Detailed Drawings
- Intuitive Navigation

MAST Module to ASE Test Correspondence

MAST Courses	ASE Tests
Course 1- Foundations & Course 2- Automotive Engines	A1 Engine Repair
Course 1- Foundations & Course 6- Drive Train and Axles	A2 & A3 (A2) Automatic Transmission and Transaxle & (A3) Manual Drive Train and Axles
Course 1- Foundations & Course 7 - Suspension, Steering and Brakes	A4 & A5 (A4) Suspension and Steering & (A5) Brakes
Course 1- Foundations & Course 3- Battery, Starting, and Charging Systems & Course 5- Electrical Systems	A6 Electrical-Electronic Systems
Course 1- Foundations & Course 8 - Heating and Air Conditioning	A7 Heating and Air Conditioning
Course 1- Foundations & Course 4- Engine Performance and Computer Systems	A8 Engine Performance



COURSE OUTLINE

Course 1- Foundations of Automotive Technology - (Prerequisites for all other courses)

1. Overview of Automotive Systems
2. Automotive Careers and Required Skills
3. Basic Automotive Hand Tools
4. Automotive Power Tools and Equipment
5. Auto Shop and Safety
6. Measurement and Math
7. Basic Electricity and Electronics
8. Locating and Using Service Information
9. Fasteners, Gaskets, Seals, and Sealants
10. Vehicle Maintenance, Fluid Service, and Recycling

Course 2- Automotive Engines

1. Fundamentals of Engine Operation
2. Classifying Engines
3. Engine Top End Construction
4. Engine Bottom End Construction
5. Engine Front End Construction
6. Engine Size and Performance Measurements
7. Cooling System Fundamentals
8. Cooling System Diagnosis, Service, and Repair
9. Lubrication System Fundamentals
10. Lubrication System Diagnosis, Service, and Repair
11. Engine Mechanical Problems
12. Engine Removal and Disassembly; Parts Cleaning
13. Engine Bottom End Service
14. Engine Top End Service
15. Engine Front End Service and Engine Installation



Course 3- Battery, Starting, and Charging Systems

1. Automotive Batteries
2. Battery Testing and Service
3. Starting System Fundamentals
4. Starting System Diagnosis and Repair
5. Charging System Fundamentals
6. Charging System Diagnosis and Repair

Course 4- Engine Performance and Computer Systems

1. Computer System Fundamentals
2. On-board Diagnostics and Scan Tools
3. Computer System Service
4. Fuel Tanks, Pumps, Lines, and Filters
5. Gasoline Injection Fundamentals
6. Gasoline Injection Diagnosis and Repair
7. Ignition System Fundamentals
8. Ignition System Problems, Testing and Repair
9. Emission Control System Fundamentals
10. Emission Control System Testing, Service and Repair
11. Exhaust Systems, Turbochargers, and Superchargers-Fundamentals, Diagnosis, and Repair
12. Engine Performance and Drivability
13. Advanced Diagnostics
14. Engine Tune-up

Course 5- Electrical Systems

1. Lights, Instrumentation, Wipers, and Horns
2. Sound Systems and Power Accessories
3. Restraint Systems



4. Restraint System Diagnosis and Repair
5. Security and Navigation Systems

Course 6- Drive Train and Axles

1. Clutch Fundamentals
2. Clutch Diagnosis and Repair
3. Manual Transmission Fundamentals
4. Manual Transmission Diagnosis and Repair
5. Automatic Transmission Fundamentals
6. Automatic Transmission Diagnosis and Service
7. Drive Shaft and Transfer Case Fundamentals
8. Drive Shaft and Transfer Case Diagnosis and Repair
9. Differential and Rear Drive Axle Fundamentals
10. Differential and Rear Axle Diagnosis and Repair
11. Transaxle and Front Drive Axle Fundamentals
12. Transaxle and Front Drive Axle Diagnosis and Repair

Course 7 - Suspension, Steering and Brakes

1. Tire, Wheel, and Wheel Bearing Fundamentals
2. Tire, Wheel, and Wheel Bearing Diagnosis and Repair
3. Suspension System Fundamentals
4. Suspension System Diagnosis and Repair
5. Steering System Fundamentals
6. Steering System Diagnosis and Repair
7. Wheel Alignment
8. Brake System Fundamentals
9. Brake System Diagnosis and Repair
10. Anti-Lock Brakes, Traction Control, and Stability Control-Fundamentals and Service



Course 8 - Heating and Air Conditioning

1. Heating and Air Conditioning Fundamentals
2. Heating and Air Conditioning Diagnosis, Service, and Repair

This course offers you the most effective way to become a certified ASE Technician. The MAST Certification provides self-paced computer-based training to give you an effective, convenient and affordable alternative to classroom training.

- Convenient Anytime, Anywhere Training
- Gain Valuable Skills, Knowledge and Expertise
- Hands-on Interactive Exercises
- Practice Assessment Tests

MAST CERTIFICATION MEANS SUCCESS!

The benefits are both personal and professional:

- By taking and passing tough, national competency exams the student will have the pride of knowing that they are among the elite in their profession.
- They will have the credentials to prove their competence to others: their coworkers, their employer, their prospective employer, and their customers.
- They can expect increased respect from their peers and their employer.
- Once certified, they will receive an ASE shoulder insignia, wallet I.D. card, and a wall certificate.

The MAST course covers the technology found in most all of today's automobiles, sport utility vehicles, and light trucks.