SHOP TRAINING

2022

Proud Member of

Training Managers Council
ATMC

ATMC AWARD WINNER
National Excellence in Training

Technical, Sales and Management Training Programs:

- Technicians
- Service Advisors
- Shop Owners and Managers

NAPA AUTOTECH

WELCOME

WHAT'S INSIDE

OVERVIEW

Welcome to NAPA Autotech! Thank you for your interest in our technician and shop management training programs. The NAPA name means quality parts and services. It also means top quality training programs to help you build a more successful auto repair business.

This document contains a high-level overview of training programs that NAPA Autotech offers. Much of the training is offered in more than one format, to accommodate varieties of learning styles and training preferences. Below are a list of partners that we work in conjunction with to give you high-quality training.

- NAPA Suppliers and Manufacturers
- The Waterhouse Group
- RLO Training
- DRIVE
- Elite™
- ATI
- RSOT

We all have certain training formats that work best for our preferred learning styles. This is why we ensure that content is offered in a variety of formats, so each person can maximize their learning.

- Hands-on classes
- Instructor-led, in-person classes
- Live and recorded instructor-led virtual classes
- Web-based courses
- Manuals

MISSION STATEMENT

NAPA Autotech provides automotive aftermarket technicians with career development opportunities through structured, disciplined, measurable, high-quality technical instruction. This instruction will enhance understanding of vehicle systems, increase first-time repair capability and increase customer satisfaction, while contributing to the profitability of its customers.

SATISFACTION POLICY

Your satisfaction with NAPA's training materials and programs is our goal. If, for any reason you are not 100% satisfied, please let us know. We offer a money back guarantee on all materials and sessions.

NAPA Training Service Center
800-292-6428
support@napaautotech.com

2022 NAPA AUTOTECH™ PROGRAM

In 2022, **NAPA Autotech** will offer a 4-pronged approach to training

1. **Sponsored Tech Updates**** – 3-hour, in-person courses (late afternoon / evening) that develop technicians of all levels. These classes provide interactive, engaging content and materials that are on current automotive technology and repair techniques.
2. **Sponsored Virtual Tech Updates** – 3-hour, live, interactive, online classes that are designed to bring the classroom to your shop customers without the need to travel. These sessions are convenient and can be attended by all employees in the shop or in the privacy of their own home, with just an internet connection.
3. **National Virtual Tech Updates –** The 2021 course offerings split up into (2), 90-minute, stand-alone sessions (40 sessions total) that are hosted by a live instructor with live Q&A. Each session was developed by multiple Subject Matter Experts.
4. **Autotech On Demand –** The 2021 virtual class recordings are now being offered as a subscription bundle, which include (5) pre-selected recordings (4 different bundles to choose from). Participants can choose from individual recordings, a subscription bundle or all (4) subscription bundles (Total of 20 recordings)

TECH UPDATES

3-hour, Late Afternoon / Evening

VIRTUAL TECH UPDATES

3-Hour, Late Afternoon / Evening - Over the Internet

BUILD A SKILL COURSES

8-Hour, Hands-On

Build A Technician

1-3 Days, Hands-On

SERVICE ADVISOR TRAINING

(2) 8-Hour Days

eLEARNING COURSES

450 Online Courses

NAPA AUTOTECH™

INSTRUCTOR-LED

- TECH UPDATES
- VIRTUAL TECH UPDATES
- BUILD A SKILL COURSES
- Build A Technician
- SERVICE ADVISOR TRAINING

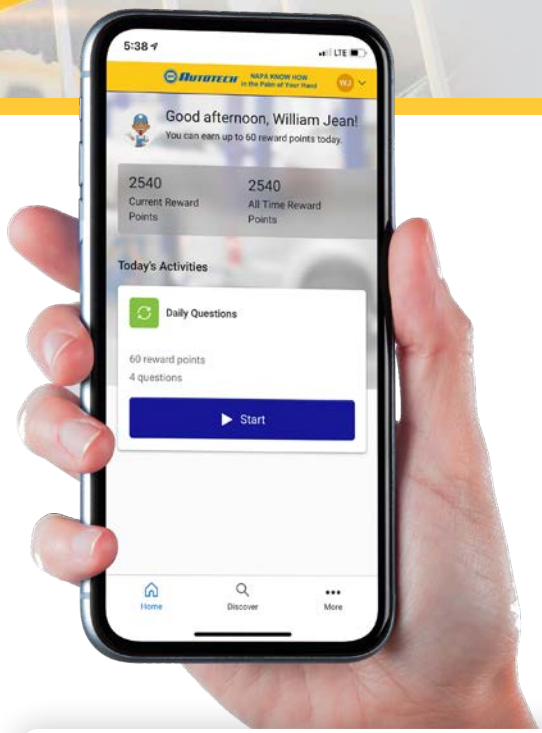
SELF-PACED

- NAPA AUTOTECH 365 Powered by TODAY'S CLASS
- eLEARNING COURSES

** All classes will be in-person unless noted as virtual. In the event that state and local regulations and company policies change, classes will be converted to virtual classes.

With the constant changes in the technology of today's vehicles, your technicians need ongoing training and skills assessment.

Autotech 365 is the answer to putting training and knowledge in the palm of your technician's hands on a daily basis so they sustain what they learn.



For Technicians & Employees:

- Bite-sized, problem-centered training sessions while they work
- Starts at a basic level to assess baseline knowledge
- Adapts to each user's unique learning needs
- Tailored around performance, knowledge retention checks, employer priorities, and more
- Access to training from technician's connected device without taking them off the job

For Shop Owners & Managers:

- Access to team-level and individual knowledge profiles
- Identify strengths and weaknesses across their workforce
- Measure ROI
- Improve Business Performance
- Boost Customer Satisfaction
- Steer workforce towards more extensive automotive-skills training available through NAPA Autotech

There's simply no better way to ensure the dollars you are investing in training are being applied where they're needed.

TECH UPDATES**

Tech Update classes are scheduled throughout the year. These 3-hour, interactive, in-person, live presentations are included in a training package offered by a NAPA sponsor.

Features and Benefits

- Convenient sessions typically late afternoon/evening
- Taught by experienced instructors with years of vehicle repair experience
- Participants receive a paper manual before class

ADAS CALIBRATION AND PROCEDURES

Recommended for Shop Owners, Service Advisors and all levels of Technicians (Course No: 7102)

Outsourcing vehicle repairs is never profitable. ADAS has made once routine repairs more involved, and simple part replacement and servicing is NOT so simple. This class will focus on the required ADAS calibrations and procedures to keep those vehicles in-house.

- Equipment
- Equipment setup
- Calibrations
- Procedures
- Software

ADVANCED WIRING DIAGRAM USAGE

Recommended for A and B level Technicians (Course No: 6901)

You have no doubt spent far too much time looking at electrical schematics without a good, clear understanding of what it is you are seeing. It's time to clear the fog and use the information to accurately target your diagnosis. With a solid understanding of applied electrical principles, you can zero in on faults very efficiently. NAPA Autotech will show you how to create a diagnostic strategy for a variety of electrical failures.

Led by your NAPA instructor, we will teach you how to anticipate and understand the values displayed when you apply your voltmeter or scope to the circuit. Don't waste precious time stumbling around diagrams, let NAPA Autotech show you the way!

- Wiring schematic styles
- Secret code of symbols in diagrams
- Tracing circuits effectively
- Narrowing faults using logic and reason before actually testing
- Tips for annotating diagrams to speed testing

ASIAN SMART CHARGING SYSTEMS *NEW*

Recommended for all levels of Technicians (Course No: 7200)

Asian manufacturers have unique approaches to computer-controlled charging systems. This class offers detailed information on popular Asian smart charging system designs, operations, and diagnostic procedures.

- Battery, belt, and circuit service
- Honda Electronic Load Detection (ELD) and dual-mode systems
- Toyota computer-monitor systems
- Nissan Intelligent Power Distribution Module and dual module systems
- LIN bus-controlled systems
- Using DMMs, scan tools, and scopes to diagnose computer-controlled charging system issues in specific applications

** All classes will be in-person unless noted as virtual. In the event that state and local regulations and company policies change, classes will be converted to virtual classes.

AUTOMOTIVE ELECTRICAL: FROM A TO CAN

Recommended for A and B level Technicians (Course No: 7015)

You know the names of many electrical testing techniques. Do you know how to perform these tests, or analyze their results? We will teach you how to determine the proper electrical tests for these systems and shed light on the best practices of electrical diagnosis.

- Utilize high and low current probes
- Demystify scope coupling (AC/DC) and signal filtration
- Capture relative compression without disassembly
- Quickly break down ignition waveforms
- Learn how to use your power probe without damaging a control module
- Cure hard-to-fix electrical noise issues
- Discover fast and simple electrical short finding techniques
- Analyze Controller Area Networking (CAN) signal

BODY CONTROL SERIES – DOORS AND WINDOWS *NEW*

Recommended for A and B Technicians (Course No: 7201)

Body Control Module (BCM) complexity has increased significantly over the years because of new vehicle features and functionality. Some vehicles require the BCM to actuate, monitor and control more than 100 circuits. This lesson will examine some common vehicle functions where the BCM plays an important role, including:

- Liftgate Systems
- Power Windows
- Sunroof
- Power Door Locks
- Power Sliding Doors
- System Overviews
- Component Operation
- Scan tool PID information for each system
- Component diagnostics and testing for each system
- Component activation through scan tool
- Scan tool demonstrations - Performing calibration and learn procedures
- Technical service bulletins and repair procedures

CHRYSLER NETWORK COMMUNICATIONS AND GATEWAYS

Recommended for Level A and B Technicians (Course No: 7100)

Chrysler communication systems have changed significantly over the last few years. Specific diagnostic strategies, information and even equipment are needed to effectively service them.

- STAR connectors
- Security Gateway Modules
- Bus types
- Factory diagnostic subscription requirements
- Network topography
- Equipment needs
- Communication architecture
- Bus voltages and pattern diagnostics

DECIPHERING GASOLINE TURBO DRIVEABILITY

Recommended for A and B Level Technicians (Course No: 7001)

This course is designed for the technician who diagnoses and repairs engine performance issues. We provide an in-depth examination of the turbocharger's function, operation, and componentry. In addition, this course offers practical approaches to diagnosis and servicing of turbocharger systems. Gasoline engine turbocharger-specific diagnostic techniques, using fuel trims and volumetric efficiency are highlighted. In addition, differences between speed density and air density fuel strategies and how they affect turbocharger operation are detailed.

- Study of driveability indicators for turbocharged engines
- Turbo-specific fuel system review
- Bidirectional controls
- Sensor testing and diagnostics with case studies

DIESEL AFTERTREATMENT – GM & FORD (Course: 7101GMFD)

DIESEL AFTERTREATMENT – FIAT CHRYSLER & EUROPEAN (Course: 7101FCEU)

Recommended for Shop Owners, Service Advisors and all Levels of Technicians

Due to ever tightening emissions regulations, exhaust aftertreatment systems have become a necessity in passenger cars and light trucks. Shops will encounter the opportunity to service these vehicles and understanding the operational characteristics of these individual aftertreatment components and systems is key to efficient diagnoses and repairs.

- SCR (Selective Catalyst Reduction)
- DEF (Diesel Exhaust Fluid)
- Componentry identification
- System theory of operation
- In-depth diagnoses

DOMESTIC SMART CHARGING SYSTEMS

Recommended for All Levels of Technicians (Course No: 7003)

Today's vehicles are more advanced than ever before; more computers and electronics are being added every day. This has caused the industry to stretch the limitations of the automotive electrical system in order to support the ever-growing number of electrical loads on today's vehicles.

This course offers detailed and up-to-date information on the domestic smart (computer-controlled) charging systems. Operation, diagnostic testing, common issues and tech tips are just a few of the areas covered. Additional information on replacement battery registration, necessary equipment and resources are also discussed.

- Replacement battery registration
- Demystify computer-controlled alternators
- Review system modes of operation and load shedding
- Coverage of GM, Ford and Chrysler systems

ENHANCED AIR/FUEL DIAGNOSTICS

Recommended for A and B Level Technicians (Course No: 7004)

This course is designed to eliminate confusion regarding Oxygen and Air/Fuel Ratio Sensors and lead the technician to more efficient diagnostics. They will learn the role these sensors have in fuel control strategies. Learn to utilize fuel system monitor operation to help identify the root cause of the failure.

- Detailed coverage of O2 Sensors vs Air/Fuel sensors
- Proper utilization of 5-gas diagnostics
- Interpretation of scan data to develop a test plan
- Micro probe testing of AFR Sensors

EUROPEAN SMART CHARGING SYSTEMS

Recommended for All Levels of Technicians (Course No: 7104)

It is no secret that in their quest to be at the forefront, European vehicles typically have numerous electrical loads. In order to better handle these greater demands, charging systems have been designed with some unique features and strategies. In a continuation of our Smart Charging System series, European technologies will be featured in this class.

- Review the European charging system's communications structure
- Key sensors
- Discuss pertinent scan data acquisition
- Cover voltage and signal testing
- Demystify replacement battery registration
- Detail resets and system calibration

FORD ECOBOOST FAMILY OF ENGINES *NEW*

Recommended for All Levels of Technicians (Course No: 7202)

Ford Motor Company has introduced its own line of smaller-displacement engines, the EcoBoost series, for its passenger vehicles and light truck applications. This course covers the entire EcoBoost family in detail.

- Review the principles of gasoline direct injection
- Reveal how twin turbochargers work
- Identify carbon and contamination buildup and its effects
- Identify fault causes and proper correction/resolution procedures
- Describe the EcoBoost's unique cooling system
- Perform diagnostics for lack of boost and DTC P0299 issues
- Perform diagnostics for crank cam correlation DTC P0016 issues

GASOLINE DIRECT INJECTION – OPERATION AND DIAGNOSTICS *NEW*

Recommended for All Levels of Technicians (Course No: 7203)

The purpose of direct fuel injection is to improve fuel economy and reduce tailpipe emissions through a precisely metered fuel charge delivered directly to the combustion chamber. Direct injection can significantly increase horsepower and torque, reduce hydrocarbons, and improve fuel economy.

This course provides students with the background to diagnose faults in direct injection fuel systems using service information and a variety of test equipment.

- Operation and purpose of direct fuel injection
- Low-pressure side: fuel pump, fuel pump control module, low-side fuel pressure control
- High-pressure side: high-pressure fuel pump Fuel injectors, fuel pressure sensor
- Engine misfire and valve deposit faults

HVAC SERIES – COOLING SYSTEM AND REFRIGERANTS *NEW*

Recommended for A and B level Technicians (Course No: 7204)

This medium to advanced course reviews the core of today's HVAC systems and their support systems up to hybrid vehicle applications. The technician will be able to diagnose multiplexed systems including ventilation concerns, in-cab heating/coolant system issues, refrigerant options, and their corresponding lubrication systems. Students will also be able to test closed AC system using pressure and temperature readings and learn how to handle A2L (mildly flammable) refrigerant 1234yf – now standard in every new car and light truck being sold in the U.S. since 2020.

- Coolant support system (inc. low temp systems-LTR)
- Support climate control systems, ventilation and heating elements
- Driveability and communication errors affecting HVAC operation
- 134a, 1234yf, 744 and (what happened to) 152a
- The importance of lubrication and non-cross contamination
- Refrigerant sealer & refrigerant identification
- Diagnosing issues via temperature and pressure
- 609 and the $95,284 EPA technician and shop penalty

HYBRID AND EV – BATTERIES AND CHARGING *NEW*

Recommended for All Levels of Technicians (Course No: 7205)

Every car and light truck manufacturer in North America today builds at least one model with a hybrid-electric or all-electric powertrain, and the popularity of these models is growing.

This training course covers the proper procedures involved in the measuring and operational testing of HV components carrying a voltage.

- Hybrid and electric vehicle design
- In-bay safety and personal protective equipment (PPE)
- Low-voltage battery systems
- High-voltage shutdown procedures
- High-voltage battery systems
- Hybrid, PHEV, and EV charging
- HV battery heating and cooling systems

IMPORT EVAPORATIVE EMISSION SYSTEMS

Recommended for All Levels of Technicians (Course No: 7006)

This course details the operation and components of the various types of import EVAP systems used on naturally aspirated and forced air induction vehicles. The technician will learn how the PCM detects leaks and determines the size of the leak. They are led into developing an effective diagnostic plan for isolating the root cause of EVAP system failures, and then how to properly use the service information to interpret malfunction thresholds. Effective use of Mode 6 data is also detailed. Additionally, the technician is exposed to procedures used to determine the presence of a leak in the EVAP system and the use of special tools to isolate the location of the leak(s) in the EVAP system.

- Review of theory and operation
- Common faults
- Discuss reprogramming options
- Asian and European vehicles

INTAKE AIRFLOW TECHNOLOGIES

Recommended for Shop Owners, Service Advisors & all levels of Technicians (Course No: 7105)

In the search for lower emissions and better fuel economy, manufacturers have had to be creative. OEMs now control and monitor air flow in various ways. The skills learned in this class will help the student diagnose these systems more efficiently, speeding up diagnostic time frames. This increases profitability for both shops and technicians.

- Overview of modern air flow technologies
- Review forced induction
- Multiple length intake runners
- Discuss adaptive throttle strategies
- Cover theory, design and diagnosing driveability concerns

LIGHT VEHICLE DIESEL INTRODUCTION

Recommended for all levels of Technicians (Course No: 7007)

Repair facilities can no longer ignore the growing number of light diesel vehicles on the road that require service. This course offers insight into common light diesel engines, information on fuel systems, air induction and boost technologies, particulate filters, exhaust catalysts, and diagnostics. Additional information provides coverage of timing components, common faults and specialty equipment. This class delivers the information needed for shops who have not yet offered diesel service to begin confidently offering light-duty diesel service and diagnostics.

- Complete fuel systems/common rail coverage
- VG (Variable Geometry) turbos
- Operation, diagnostics and repair of aftertreatment systems
- Common fault diagnoses

MODERN ELECTRONIC STEERING AND SUSPENSION

Recommended for Shop Owners, Service Advisors and all levels of Technicians (Course No: 7103)

With the advent of Advanced Driver Assistance Systems (ADAS), steering and suspension systems are now integrated into the broader scope of safe vehicle operation through computer monitoring and correction. Understanding how these systems integrate, operate, and are diagnosed, will be instrumental for a profitable shop.

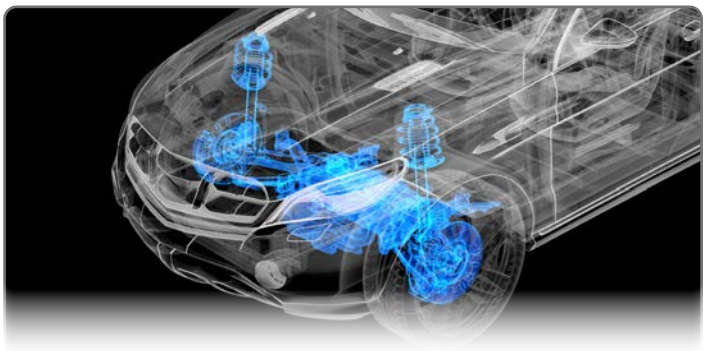
- In-depth view of these systems
- Using scan tool and scope diagnostics
- The power steering control module's place on the information BUS
- Coverage of proper resets and calibrations
- Differentiate various systems: pneumatic, magnetic and hydraulic

NETWORK COMMUNICATION AND DIAGNOSTICS

Recommended for Level A and B Technicians (Course No: 6907)

In this class, we will discuss how the network operates and be able to apply this knowledge in a practical way to the vehicles in your bay.

- What you need to know about Bus systems
- Isolate modules for quicker diagnostics
- Provide tech-tips from real world case studies
- Review proper techniques and the importance of terminal integrity
- Discuss how to deal with each module one-on-one
- Define precautions that will save you from making mistakes



SCAN TOOL PROFICIENCY

Recommended for A and B Level Technicians (Course No: 6808)

Today's technicians have access to more scan data than ever before. This class will focus on getting the most out of your scan tool. We will show how to interpret this data. We cover which PIDs can be used together to quickly and accurately determine driveability problems, using just OBDII data. Bidirectional controls are available on many components; see how to cut diagnostic time by using these features.

We will look at scan tools from many manufacturers including OEM models as well as J2534 applications. Mode 6 and other useful information from the OBDII generic side of your tool can also be very useful. Learn how and when to use this information. This class is a must-attend for all who aspire to be better diagnosticians.

- Maximize your scan tool. Use it like it was meant to be used!
- Coverage of case studies and real diagnostics to repair broken cars
- Discuss OEM and aftermarket scan tool tips, tricks and unknowns
- Review security, programming and communication simplification
- MAF math and PID display choices for quick data acquisition

START-STOP TECHNOLOGIES

Recommended for Shop Owners, Service Advisors and all levels of Technicians (Course No: 6809)

Fuel economy and emissions drive automotive technology today. This is the case with start-stop technologies. These systems can be found on all vehicles from pickup trucks to both economy and luxury cars, of all brands. Knowledge of these systems will aid in proper diagnosis and repair. An average vehicle requires communication between at least three modules to operate the starter, and that number continues to grow. Use critical thinking to reduce time spent diagnosing a start-stop malfunction. Gain confidence in your approach to these complex systems. Complete diagnostic procedures are provided, including overviews of system operation for single, multi-battery and capacitor type systems. This is a must-have service in all shops today.

- System configuration
- Complete review of Start-Stop systems' data and testing
- Learn power-moding
- Discover details of starter motor evolution

TACTICAL DIAGNOSTIC SERIES – SCAN AND SCOPE

Recommended for Shop Owners, Service Advisors and all levels of Technicians (Course No: 7106)

Misdiagnosis and unnecessary parts replacements plague many shops and technicians. Eliminating these pitfalls to maximize diagnostic efficiency is the strategic focus of this class. A tactical approach to using your full arsenal of diagnostic equipment in concert, as conditions require, to quickly diagnose with 99.9% certainty, is the goal. This provides the diagnostic and repair efficiency that satisfies customers and makes you money.

- Capabilities of OEM scan tools
- Review the capabilities and limitations of aftermarket scan tools
- Realize the full capabilities of DSOs (Digital Storage Oscilloscopes)
- Discuss integration of scan tool and scope usage to clarify and validate diagnosis

AVAILABLE APRIL 2022 TACTICAL DIAGNOSTIC SERIES – STRATEGIES FOR A SUCCESSFUL DAY IN THE BAY *NEW*

Recommended for All Levels of Technicians (Course No: 7207)

Each day, technicians prepare for the diverse challenges posed by modern diagnostics and repair. Unfortunately, we don't get to choose the vehicles that land in our bay, but each one brings unique opportunities for growth.

This course is the first in a series of case-study-based diagnostics, told from the technician's viewpoint. Real-world case studies are utilized showing the importance of following a proven approach for success.

- Balancing efficiency of our time, while remaining accurate in our diagnosis
- Incorporating scan tools, oscilloscopes, multi-meters, service information and all the resources available to the modern technician
- Following customer concerns through completion of repair

VVT VARIABLES

Recommended for Shop Owners, Service Advisors and all levels of Technicians (Course No: 6810)

All major vehicle manufacturers employ VVT technology to increase fuel economy and reduce emissions. Many of these components are tucked away in hard-to-access areas, so proper diagnoses are critical. Utilizing bidirectional controls, scan data, cam and crank sensor correlation and pressure waveform analysis is key.

- Discuss VVT function, purpose and component differences
- Review alternatives to complete engine teardown
- Scan tool, scope and circuit analysis
- Cover VVT controls and testing
- Present a thorough review of magnetic and hydraulic systems

VIRTUAL TECH UPDATES**

Virtual Tech Update classes are scheduled throughout the year. These 3-hour, online, live presentations are available through your sponsor.

** *All classes will be in-person unless noted as virtual. In the event that state and local regulations and company policies change, classes will be converted to virtual classes.*

Features and Benefits

- Convenient sessions typically late afternoon/evening from any Internet connection
- Group event or attend individually
- Register individually for tech to receive credit/certificate
- Taught by multiple, experienced instructors with years of vehicle repair experience
- All lines muted
- Interactive with instructors in real time through online Q&A
- Participants receive a link to the eBook before class
- Afterwards, a link to a recording will be available on the training site

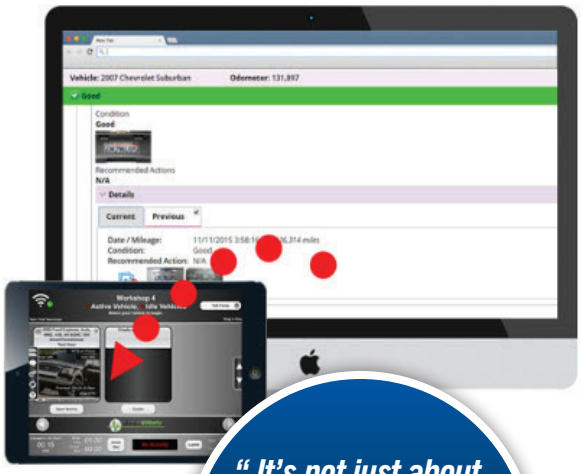
SERVICE ADVISOR TRAINING

NAPA Autotech offers Service Advisor Training in a 2-day / 16-hour class. Our goal is to equip a Service Advisor with improved communication skills and techniques to build a more trusting relationship with the shop's customers.

- Better Phone and Customer Greeting Skills
- Sales Skills Including Core Selling
- Internalize the 6 Steps to Better Sales

Service Advisors should be equipped with enough technical information in the following areas to better explain repair and service recommendations to customers.

- Preventive Maintenance
- Brakes
- Steering, Suspension and Alignment
- Air Conditioning
- Diagnostics



" It's not just about today's sale. It can lead to 20 years of sales to a satisfied customer. "

Limited to 30 participants

Note: This class is ONLY offered in an in-person (instructor-led) format.

For more information, go to napaautotech.com

eLEARNING COURSES

NAPA AUTOTECH offers multiple eLearning packages. The Autotech Starter package provides a sampling of eLearning courses to assist in evaluating the need to purchase an eLearning package. The All-Inclusive package includes over 450 eLearning courses on various topics, supplier training, Autotech Assessments and ASE Test Preparation courses.

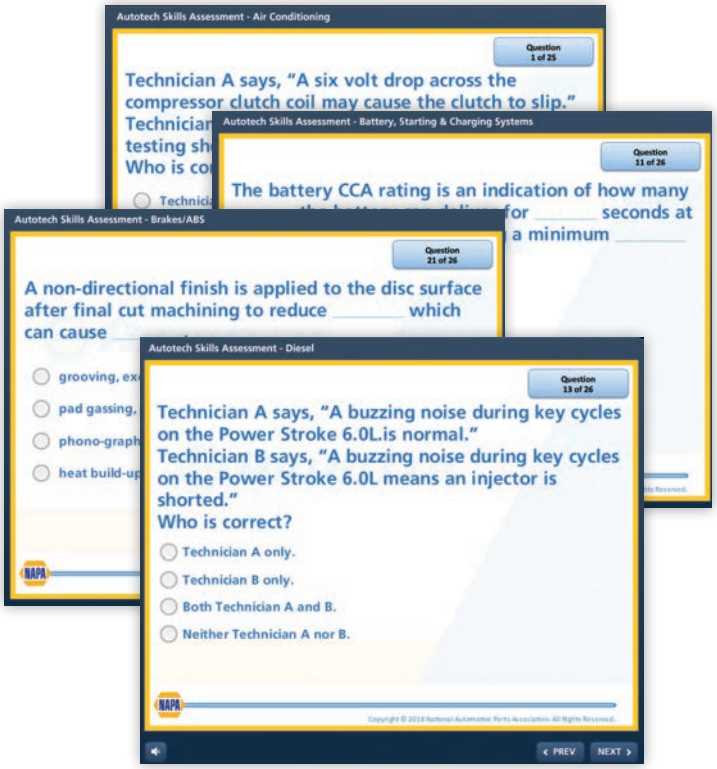
Package Options	X=FREE	Starter Package	All Inclusive
	All Shops	All AutoCare Centers	AutoCare Gold and Class Attendees
Supplier	X	X	X
Autotech Skills Assessments	X	X	X
Preventive Maintenance Series	X	X	X
Safety	$498/Year for All-Inclusive	X Sampler	X All
Technician • ASE Test prep (over 35 courses) • Alignment, Steering, Suspension • Brakes • Diesel • Drivetrain • Electrical, Starting and Charging • Engine Performance and Diagnostics • Fuel Ignition and Emissions • Heating, Cooling and AC • Hybrid		$294/Year for All-Inclusive	X
Service Advisor			X
Shop Management			X

SIGN-UP ONLINE @
napaautocaretraining.com or napaautotech.com

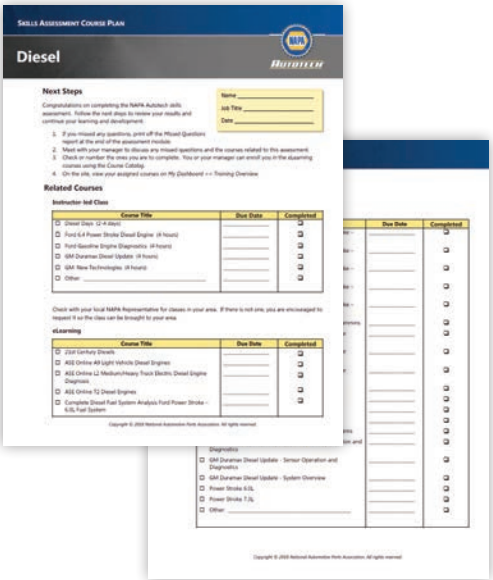
IDENTIFY OPPORTUNITIES TO INCREASE PRODUCTIVITY

Visit your training site and let the **Technician Skills Assessments** identify areas where training can increase your technicians' productivity.

- Only takes approximately 15 minutes to complete an assessment
- Use all assessments for everyone in a shop or individually
- Includes multiple choice and ASE type questions covering 11 automotive repair topics
- Measures knowledge in:
  - Air Conditioning
  - Alignment
  - Batteries/Starting and Charging
  - Brakes/ABS
  - Diesel
  - Electrical
  - Ford Power Stroke Diesel
  - Hybrid Vehicle Safety
  - New Technician Essentials
  - Service Sales
  - Steering and Suspension



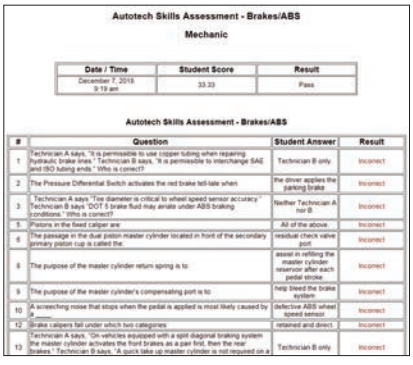
All assessments are available for everyone in a shop!



No Passing or Failing Grades

Technicians can view a detailed list of questions missed.

They receive recommendations on training courses that will help improve performance to discuss with their manager.



For more information visit napaautotech.com, call 800-292-6428, or talk to your NAPA AUTO PARTS representative.

Included in the All-Inclusive eLearning Subscription!

TEST PREPARATION

Fast, Connvenient and Low Cost

Online - ASE Technician Certification Test Preparation is included in the All-Inclusive eLearning Supscription or can be purchase a la carte through the napaautotech.com or napaautocaretraining.com websites.

In-Person - 1-day prep courses taught by Master ASE certified technician instructors. ASE style test questions are used in class exercises for practice. The registration, scheduling, and test taking processes are reviewed. Upon completion of course, the student will be better prepared to pass the related ASE test.

It's easy to get started online! After purchasing, simply go online and click ASE Certification Test Preparation and start building your future!

Choose from these in-person class topics:

A1 Engine Repair	A5 Brakes	G1 Automobile Service & Light Repair
A2 Automatic Transmissions & Transaxles	A6 Electricity & Electronics	L1 Advanced Engine Performance
A3 Manual Drive Trains and Axles	A7 Heating & Air Conditioning	C1 Service Consultant
A4 Suspension & Steering	A8 Engine Performance	

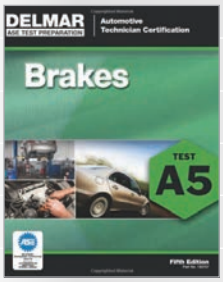
BE READY!

More Opportunities to Certify

Over 500+ ASE Test Center Locations

Test all throughout the year, including weekends!

*Visit **ase.com/napaauto** for more details*



PAPER MANUALS

NAPA also offers paper self-study ASE test preparation manuals. These manuals provide detailed test preparation content and sample test questions. They allow you to review the content at your own pace.

All manuals are available for ordering on the website napaautotech.com or napaautocaretraining.com.

Many in Spanish!

CENGAGE LEARNING MANUALS ARE AVAILABLE FROM NAPA:

- A1-A9 Automotive Series
- B2-B6 Collision
- C1 Service Advisor
- G1 Auto Maintenance and Light Repair
- H1-H8 Transit Buses
- L1 Advanced Engine Performance
- L2 Med/Heavy Truck Electric Diesel Engine Diagnosis
- P1-P4 Automotive Parts Specialist
- S1-S7 School Buses
- T1-T8 Truck Series
- X1 Exhaust Systems

** All classes will be in-person unless noted as virtual. In the event that state and local regulations and company policies change, classes will be converted to virtual classes.

TIPS, TOOLS AND TECHNIQUES

New Every Month!

Tech's Edge is a useful, fresh, full-color, easy-to-read 4-page monthly newsletter that is full of important diagnostic tips, tools, and techniques.

TECH'S EDGE TOPICS - 2022

- Modern Engine Oils
- Sealing and Gasketing
- 1234yf - Critically Charged
- Visibility - Wipers, Glass Coatings, Cleaners
- Connected Vehicle Technologies
- Immobilizer and Key Programming
- Modified Vehicles and the Challenges They Present
- Hybrid/EV Charging Equipment
- Lighting the Way - Visibility Enhancements
- AWD systems - What's New?
- Advanced Diagnostic Equipment
- Advanced Suspension Systems

Included in the eLearning Packages!

NAPA AUTOTECH CLASSPASS PROGRAM

ClassPass Offers Easier Class Registration and Additional Benefits!

NAPA Autotech is pleased to offer a class participation program called ClassPass. This program is designed to:

- Easy Class Registration Process
- Additional After-Class Material Provided

If you have any questions about the ClassPass program, please contact the NAPA Training Service Center at (800) 292-6428

Build A Technician

*** All classes will be in-person unless noted as virtual. In the event that state and local regulations and company policies change, classes will be converted to virtual classes.*

Build-A-Technician courses are 24 hours over 3 days, with class size limited to 16 participants. This allows the instructor to provide students with individual attention and time to practice.

Each course covers the fundamentals of brakes, electrical, steering and suspension or HVAC.

BRAKES (Course: 7012BAT)

Recommended for Entry Level Technicians

This course includes classroom lecture/demonstration and hands-on activities utilizing training demo mock-ups. This class is designed to introduce technicians to the fundamentals of braking systems, theory, components, specifications and measurements. Technicians will be introduced to proper inspection procedures, as well as related equipment and tool operation.

- Proper and consistent brake inspection
- Brake fundamentals
- Hydraulics
- Drum brakes
- Disc brakes
- Machining rotors and drums
- Parking brake systems
- Brake bleeding
- Introduction to hybrid brake systems
- Introduction to anti-lock brakes

ELECTRICAL (Course: 7011BAT)

Recommended for Entry Level Technicians

This course includes classroom lecture/demonstration and hands-on activities utilizing training demo mock-ups. This class provides technicians with knowledge, skills and confidence to tackle everyday electrical issues. You will read schematics, build circuits, and diagnose faults in real world scenarios.

- Electrical safety
- DVOMs explained via hands-on
- Electrical wiring diagrams
- Battery testing
- Circuits (series, parallel, series/parallel)
- Control circuits & relays
- Starter circuits
- Charging systems
- Parasitic load testing
- Computer systems

HVAC (Course: 7013BAT)

Recommended for Entry Level Technicians

This course includes classroom lecture/demonstration and hands-on activities utilizing training demo mock-ups. This class will provide real world heating, cooling and A/C theory, as well as diagnostic and repair procedures utilizing actual operating A/C and Coolant mock-ups. .

- Hands-on service on actual working A/C mock-ups
- Refrigeration system component diagnosis and repair
- Systems controls diagnosis and repair
- Safe servicing of systems
- Leak testing
- Evacuate and recharge
- Oil level testing

STEERING AND SUSPENSION (Course: 7014BAT)

Recommended for Entry Level Technicians

This course includes classroom lecture/demonstration and hands-on activities utilizing training demo mock-ups. The class is designed to improve the technician's ability to inspect and service steering and suspension systems. You will learn to utilize helpful tools to reduce service times, why alignments are critical, and how SAI, IA, Scrub Radius, and Setback relate to proper alignment.

- Steering systems diagnosis and repair
- Vehicle inspection
- Suspension systems diagnosis and repair
- Wheel alignment diagnosis, adjustment and repair
- Wheel and tire diagnosis and service
- Hands-on service practice

BUILD A SKILL COURSES

*** All classes will be in-person unless noted as virtual. In the event that state and local regulations and company policies change, classes will be converted to virtual classes.*

Build A Skill classes are 8-hour, in depth, hands-on classes. Limited to 16 participants per class so the instructor can give individual attention and time to practice for each participant.

A/C DIAGNOSTICS (HANDS-ON) (Course: 6912)

Recommended for All Levels of Technicians

In this one-day class, you will learn to quickly diagnose A/C problems using real working A/C systems and refine your A/C diagnostic and service skills.

- A/C operation and troubleshooting
- Discover new methods for A/C leak testing
- Review dye type leak testing
- Utilize testing equipment to ensure proper fill
- Practice refrigerant identification
- Perform temperature drop testing
- Comprehend new system procedures
- Discuss A/C time saving tool use

Technicians are advised to take the *Air Conditioning System Service*, *Air Conditioning System Theory*, *Catastrophic A/C Failures: What to Do, Critical Air Conditioning Service Techniques* eLearning training on ***napaautotech.com*** or ***napaautocaretraining.com*** website before attending this class.

BRAKE SERVICE AND REPAIR (HANDS-ON) (Course: 7008)

Recommended for All Levels of Technicians

In this class you will learn the fundamentals, theory of operation, components, diagnostics, and proper service procedures for today's brake systems. The class includes both lectures and hands on demonstrations.

- Disc Brakes
- Drum Brakes
- Parking Brake Systems
- Hydraulics

Technicians are advised to take the brakes eLearning training on ***napaautotech.com*** or ***napaautocaretraining.com*** website before attending this class.

ELECTRICAL DIAGNOSTICS (HANDS-ON) (Course: 6913)

Recommended for All Levels of Technicians

This one-day class will teach you the steps required to quickly and accurately diagnose electrical problems using demo boards. We will introduce lab scope theory.

- Voltage drop testing
- Ammeter (AMPERAGE) testing
- OHM meter (RESISTANCE/ CONTINUITY) testing
- Testing of computer sensor circuits
- No start diagnostics

Technicians are advised to take the *Introduction to Automotive Electrical/Electronic* eLearning training on ***napaautotech.com*** or ***napaautocaretraining.com*** website before attending this class

FUEL SYSTEMS (HANDS-ON) (Course: 7009)

Recommended for A and B Technicians

In this class, you will learn the steps required to quickly identify and effectively diagnose modern day fuel systems.

- Fuel pressure/ volume testing
- Fuel trim diagnostics
- Volumetric efficiency
- Demystify fuel pump waveform analysis

Technicians are advised to take the fuel system eLearning training on ***napaautotech.com*** or ***napaautocaretraining.com*** website before attending this class.

INTERMITTENT DRIVEABILITY DIAGNOSTICS (HANDS-ON) (Course: 6914)

Recommended for A and B Technicians

In this class, you will learn the steps required to quickly diagnose intermittent faults by using mockups and real-world scenarios.

- Fault Categorization
- Computer Failure Modes
- Testing Tips Using Scope Record Features
- Critical Thinking Skills to Determine Root Cause
- Power Probe Tips and Tricks
- Fuel Volume Testing
- Mode 6 and 9 Tips

Technicians are advised to take the *Automotive Computer Operations* eLearning training on ***napaautotech.com*** or ***napaautocaretraining.com*** website before attending this class

MECHANICAL ENGINE SPECIALTY SCOPE DIAGNOSTICS (HANDS-ON) (Course: 6915)

Recommended for A and B Technicians

In this one-day class, you will learn the steps required to quickly and accurately diagnose mechanical engine problems using mockups, enabling diagnostic procedures to be performed quickly and accurately. This class may be held in a shop environment where you will be around running engines, so be sure to bring along appropriate safety gear (PPE – Personal Protection Equipment).

- Electronic Compression Testing
- Intake Pressure Transducer Usage
- Fuel Pressure Transducer Usage
- In Cylinder Pressure Diagnostics

Technicians are advised to take engine diagnostics and scope eLearning training on ***napaautotech.com*** or ***napaautocaretraining.com*** website before attending this class.

SCOPE AND SENSOR TESTING (HANDS-ON) (Course: 7010)

Recommended for A and B Technicians

In this class you will learn how to utilize a lab scope to its potential, while expanding your comfort level with various tests.

- Perform ignition testing
- Explore cam and crank signals and their relationship
- Utilize high and low current probes with the scope
- Introduce DC/AC coupling and signal filtration

Technicians are advised to take engine diagnostics and scope eLearning training on ***napaautotech.com*** or ***napaautocaretraining.com*** website or participate in the Tech Update class *Lab Scope Live – 21st Century Edition* before attending this class.

GARAGE GURUS AUTOMOTIVE TRAINING

Everything You Need To Know

Garage Gurus® is an industry-leading training and support platform created to address the skills gap and technician shortages facing the automotive service industry.

Built from a unique combination of technical training, product expertise and onsite, online, and on-demand delivery, Garage Gurus makes comprehensive training available to more service technicians than any other aftermarket manufacturer.

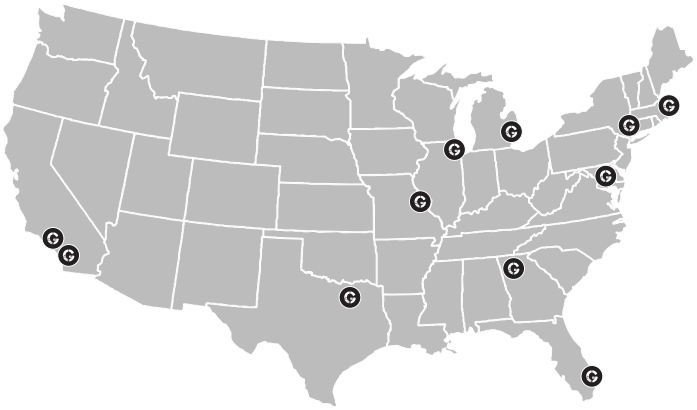
We come to work every day to give technicians the skills, training and knowledge they need to ensure quality repairs and build a stronger, more successful automotive service industry.

Garage Gurus Onsite Training

Industry studies show that technicians prefer hands-on, in-person training when it comes to advancing their skills and careers. The Garage Gurus onsite training program showcases our ASE-Certified Master Trainers, state-of-the-art facilities and equipment, as well as a new Mobile Automotive Training Center. Check out our offerings below:

ONSITE FACILITY TRAINING

Our premium form of training, we offer in-person, hands-on trainers from 11 nationwide facilities. All taught by ASE-Certified Master Trainers.



Gurus Onsite Locations

Atlanta, GA
Baltimore, MD
Boston, MA
New York, NY
Dallas, TX
Ft. Lauderdale, FL
Rancho Dominguez, CA
Chicago, IL
Southfield, MI
St. Louis, MO
Van Nuys, CA

MOBILE AUTOMOTIVE TRAINING CENTER

A **53' double-expandable trailer** is the home of the Garage Gurus MATC. Converted into state-of-the-art in-class and hands-on automotive training facility, the MATC offers over 13 different courses from our instructor-led workshops and field clinics. You get the expertise and know-how you've come to expect from the Gurus, in a unique mobile setting.

13 IN-PERSON & HANDS-ON COURSES

25 STUDENT CAPACITY

6 CATEGORIES COVERED

For more information, contact us at autotech@garagegurus.tech, or contact your DRiV Business Development Manager.

Garage Gurus Onsite Training

Learn from our ASE-Certified Master Trainers, straight from our state-of-the-art technical service centers throughout the country, or from our Mobile Automotive Training Center. These facilities are stocked with the latest tools and equipment, giving students the best opportunity to apply the concepts taught in-class, in a hands-on, vehicle bay setting. Our 4-hour workshop course offering is below:

Hands-On Training Only Available at Garage Gurus Facilities and Mobile Automotive Training Center. 12 Student Capacity.

WORKSHOP COURSES | 4 HOUR	
BRK.206.1.WS	**Advanced Brake System Service Tips and Techniques** The workshop is designed with a combination of classroom and hands-on education to enhance the technician's ability to properly diagnose automotive and light truck braking systems. In this class we discuss how to pinpoint the causes of brake pulls, brake vibrations and brake noise complaints. Proper service procedures are reviewed and installation tips are covered to prevent comebacks. The causes of uneven brake pad wear are also identified. We use live vehicles in the shop to help illustrate some of these points.
BRK.208.1.WS	**Electronic Brake Control (EBC) Systems on Hybrid and Non-Hybrid Vehicles** This workshop is designed for classroom education to enhance the technician's ability when performing base brake service on vehicles with Electronic Brake Control (EBC). These systems are found on many luxury and hybrid vehicles. We discuss the operation of the brake system components involved and how apply pressure is generated. In addition, ABS/stability control system operation found on EBC systems are reviewed.
ELC.503.1.WS	**Hands-On Electrical Diagnostics** This workshop is designed for technicians who have a basic understanding of electrical theory (voltage, current flow, ohms and watts) and are ready to put it to use. A large portion of this class is spent in our state-of-the-art shop working on vehicles with common, everyday automotive electrical test equipment. Technicians walk through common electrical test practices on bugged vehicles utilizing a DMM (digital multimeter) to assist in accurate diagnosis. Common sensor inputs and outputs are explored with emphasis placed on diagnostic procedures and on-car testing. Input testing includes diagnosing three wire analog sensors, variable reluctance sensors and various digital sensors. Output testing includes, pulse width modulated solenoids and DC motors. This workshop includes handson bay activities supporting the aforementioned topics.
ENG.404.1.WS	**Engine Misfire Analysis** This workshop is designed for the drivability technician. Emphasis is placed on streamlining the process during the diagnostic of an engine misfire. We review scan tool data captured from various types of engine misfire complaints and connect-the-dots to locating the root cause. Several diagnostic tips and strategies are highlighted to help improve anyone's diagnostic methods. The infamous P0300 DTC (random cylinder misfire code) will no longer elude you after completing this workshop.
IGN.303.1.WS	**Analyzing Today's Ignition Systems** This workshop discusses diagnostic shortcuts and test methods that streamline the time spent pinpointing failures within the Ignition system. Modern COP Ignition system operation is reviewed in the classroom and tested in the service bays. Primary and Secondary Ignition waveforms are captured and reviewed in the service bays using the latest automotive diagnostic equipment.
SS.105.1.WS	**Diagnosing Modern Chassis Systems** This workshop is designed to focus on the high volume repair opportunities found in the undercar sector of the automotive industry. The important relationships between component integrity, alignment geometry, vehicle handling and tire wear are defined. We discuss proper inspection procedures for all suspension and steering system types. Hands-on shop demonstrations in our state-of-the-art service bays are performed during this workshop.
SS.107.1.WS	**Electronic Suspension Diagnostics** This workshop enhances the skills of the professional undercar technician in the areas of operation and diagnosis on electronically controlled suspension systems. We discuss techniques and procedures to replace, set up and calibrate suspension components, such as height sensors and electronic shocks and air springs, on vehicles with ECS (Electronically Controlled Suspension). Vehicle diagnostic strategies revolving around ride quality and handling issues are the focus. Air and Nitrogen suspension operation is discussed. Proven diagnostic strategies that address Service Suspension lights and vehicle stability concerns are discussed.

For more information, contact us at autotech@garagegurus.tech, or contact your DRiV Business Development Manager.

Garage Gurus Tech Update Training

Can't make it to one of our locations? No problem! The Garage Gurus Tech Update training brings our ASE-Certified Master Trainers straight to a location of your choosing. From these settings, we can teach a modified version of our instructor-led training while still providing the quality expected from our facilities. Our 3-hour Tech Update offering is below:

TECH UPDATE | 3 HOUR	
BRK.2021.1.FC	**Brake System Technology** This clinic is designed to enhance the technician's ability to perform proper brake service procedures on today's vehicles utilizing Electronic Brake Control (EBC) systems. We discuss several Active Safety Systems and the operational strategies used on many new vehicles. Included in this technical seminar is an overview of stability control operation and the modern advancements within this safety technology. Newly mandated braking controls and the impact on vehicle braking performance are reviewed. Special service procedures on the base brake system are outlined. Brake by wire and automatic stop system control inputs and outputs are discussed. Yaw, lateral, accelerometer, wheel speed, active brake booster and brake pressure sensor testing procedures are outlined.
IGN.3031.1.FC	**Modern Ignition System Testing** This clinic is designed to enhance the professional level technician's knowledge of modern ignition system diagnostics. P0300 misfire DTC diagnostic strategies are covered using modern scan tools and ignition system test equipment. Information covered reviews digital storage oscilloscopes (DSOs) patterns captured using current probes, inductive wands and voltage test leads to validate modern ignition system components ranging from crankshaft and camshaft position sensors to today's COP (Coil on Plug) assemblies. Misfire information obtained from the scan tool is explained and reviewed through Case Study vehicles. PCM (Powertrain Control Module) operational strategies are defined pertaining to OBD II Misfire Monitoring standards.
DRV.6111.1.FC	**Evaporative Emissions Diagnostics** This clinic is designed to aid technicians in the understanding of how to diagnose and repair today's Evaporative Emission Control Systems. We will cover several types of Enhanced Evaporative Emission systems with a focus placed on Leak Detection Pumps (LDP) and Evaporative System Integrity Modules (ESIM). We will also discuss operating strategies for Engine Off Natural Vacuum (EONV) systems and Natural Vacuum Leak Detection (NVLD) systems. Leak testing procedures using smoke test equipment will be reviewed and discussed. Diagnostic methods for quickly pinpointing the cause of common EVAP DTC's will be highlighted. DTC interpretation defining electrical and mechanical component faults will be reviewed to aid in streamlining diagnostic processes.
ELC.5061.1.FC	**Body Electrical** This clinic is designed for technicians who already have a solid electrical foundation and are looking to understand today's vehicles complex body electrical systems. Covered within this workshop will be multiplex network communications and network system diagnostics. We will look at network toplogy for various body electrical systems and discuss how system modules and components interact with one another. Communication 'gateways' and module diagnostics will be discussed. This course will take a deep dive into several BCM (body control module) controlled systems and will discuss diagnostic strategies using the scan tool, DMM's and lab scopes to pinpoint test and located problems.
SS.1041.1.FC	**Advanced Alignment Diagnostics** This clinic enhances the skills of the professional undercar technician in the area of advanced wheel alignment. It covers suspension and steering diagnosis due to bent parts from accidents and road hazards, vehicle modifications, tire/wheel resizing and height issues. A review of basic alignment angles followed by thorough explanation of steering axis inclination (SAI), included angle (IA), scrub radius and toe out on turns (TOOT) will assist the alignment technician in utilizing the aligner as a diagnostic tool. Related electronic systems are also covered in this course. Vehicle component inspection and customer communication skills are necessary traits for any successful alignment tech and the importance of these skills are stressed in this class.
BRK.2031.1.FC	**Active Vehicle Safety** This clinic provides the professional technician with a perspective on how to properly service today's braking and steering systems on vehicles equipped with ADAS (Advanced Driver Assist Systems). The foundation of these systems is based on the ABS/VSC (anti-lock brakes and Vehicle Stability Control) system. We will briefly discuss system operation of the ABS/VSC systems to set the ground work for deeper discussions on ADAS. Diagnostic procedures on ABS/VSC system components will be explored. Electric Power steering systems will be introduced and their contribution to the ADAS systems will be explained. Proper service and calibration procedures will be presented for Steering Angle Sensors, accelerometers and YAW sensors. Several Active Safety systems and their operational strategies will be outlined. In addition, safety system alignment resets will be discussed for Adaptive Cruise Control, Forward Collision Warning and Lane Departure Warning.

For more information, contact us at autotech@garagegurus.tech, or contact your DRiV Business Development Manager.

Garage Gurus Virtual Training

We've optimized our most in-demand Field Clinic topics, and made them available in our new virtual format.

Straight from our technical service center bays, our virtual training platform utilizes a unique combination of hands-on vehicle demonstrations and in-class lecture presentations. This brings the experience of in-person training, and the value of in-class teaching, straight to all devices.

These courses are created exclusively by our Master Training team, intended to educate and grow technician and service provider's real-world skills in a number of different areas. See our offering below:

VIRTUAL TRAINING	
Brake System Technology	This clinic is designed to enhance the technician's ability to perform proper brake service procedures on today's vehicles utilizing Electronic Brake Control (EBC) systems. We discuss several Active Safety Systems and the operational strategies used on many new vehicles. Included in this technical seminar is an overview of stability control operation and the modern advancements within this safety technology.
How to Use your Lab Scope for Diagnostics	In this clinic, we will present how to set up and operate a lab scope for the purpose of testing automotive sensors and components of various types. As the saying goes, "A picture is worth a thousand words." We cover set up procedures, voltage and time base settings, and waveform capturing techniques. Waveforms captured from many different component types are reviewed to differentiate 'good' and 'bad' waveforms.
Modern Ignition System Testing	This clinic is designed to enhance the professional level technician's knowledge of modern ignition system diagnostics. P0300 misfire DTC diagnostic strategies are covered using modern scan tools and ignition system test equipment. Information covered reviews digital storage oscilloscopes (DSOs) patterns captured using current probes, inductive wands and voltage test leads to validate ignition system components ranging from crankshaft and camshaft position sensors to COP (Coil on Plug) assemblies. Misfire information obtained from the scan tool is explained and reviewed through Case Study vehicles.
Advanced Alignment Diagnostics	This clinic enhances the skills of the professional undercar technician in the area of advanced wheel alignment. It covers suspension and steering diagnosis related to bent parts from accidents or road hazards, vehicle modifications, tire/wheel resizing and height issues. A review of basic alignment angles followed by thorough explanation of steering axis inclination (SAI), included angle (IA), scrub radius and toe out on turns (TOOT) will assist the alignment technician in utilizing the aligner as a diagnostic tool. Related electronic systems are also covered in this course.
J2534 Vehicle Programming (Available April 2022)	This clinic focuses on providing information to technicians about J2534 pass thru programming processes. Reprogramming on today's vehicles can be required for a number of different reasons. We will discuss how to find and navigate service information websites, both aftermarket and OE. This clinic discusses the different J2534 programming interfaces and will help technicians decide which one is best to suit their shop's needs. Step by step processes for re-programming existing as well as programming NEW modules will be discussed.

For more information, contact us at autotech@garagegurus.tech, or contact your DRiV Business Development Manager.

NAPA® ECHLIN®

DELIVERING AWARD-WINNING IN-PERSON & VIRTUAL LEARNING

PROFESSIONAL AUTOMOTIVE TRAINING WHEN YOU WANT IT, WHERE YOU WANT IT, AND HOW YOU WANT IT!

NAPA® Echlin® Training delivers education classes that train technicians in the latest automotive repair technologies. These professional certificate courses allow techs to earn continuing education credits (CEU) and are offered in-person and virtual, supported by our on-demand online program.

Master Series Training

NAPA® Echlin® offers hands-on training master classes at their corporate training center in Irving, TX. Topics such as HVAC, Module Programming, Lab Scope, and GDI are offered in a two-day, in-person class that includes a combination of classroom and shop activities. The course fee includes hotel stays and all meals while there.

On-Site / Virtual Training – in English and Spanish

NAPA® Echlin® offers professional in-person training at your location, or virtually via computer (course details on following page). Whether in-person or virtual, all NAPA® Echlin® Training classes feature a live instructor and are fully interactive as students work through real-life scenarios. Virtual class “workbooks” include on-demand links to video content and student configurable scan data.

On-Demand Training – in English and Spanish

NAPA® Echlin® offers an annual subscription to Pro Training On-Demand. This subscription grants access to more than 190 English, and over 50 Spanish 1-hour courses – and the NAPA® Echlin® on-demand library continues to grow. Topics range from fundamentals to advanced concepts, and include HVAC, diesel, hybrid, ignition, injection, electrical and communication diagnosis.

6.7 POWERSTROKE DIESEL PROBLEMS AND SOLUTIONS

Ford introduced the redesigned 6.7L Powerstroke in 2011, (replacing 6.4L) which introduced many unique systems including a single sequential turbocharger, dual EGR coolers, and a dual cooling system. The 6.7L was designed to meet new emission requirements and is equipped with an advanced aftertreatment system. This class will prepare technicians for service opportunities and diagnosis/repair of common component failures. Technicians will learn how to perform difficult-to-run learn functions associated with aftertreatment component replacement.

ABS & STABILITY CONTROLS

Today's vehicles are equipped with sophisticated stability controls. Anti-lock braking, traction control, and enhanced stability systems work together to provide safety and performance. Multiple modules communicating over high-speed networks are needed for these systems to operate. Active wheel speed sensors can make the diagnosis more complex. This class will enable technicians to diagnose, service, and repair ABS and stability control components and systems. We will examine these systems in detail and demonstrate proper service procedures through diagnostic scenarios on real-life vehicles.

DOMESTIC ANTI-THEFT SYSTEMS

Anti-Theft systems have become more complex and are now integrated into other systems such as TPMS and Remote Keyless Entry. While the operating methods haven't changed much, many unique service procedures have been introduced due to the increased security. This class will further increase the technician's understanding of modern Anti-Theft systems and introduce methods to simplify diagnostics. Case studies will be presented showing failures documented by top techs, programming procedures, and resolutions when a programming procedure fails.

DURAMAX DIESEL DIAGNOSIS AND SERVICE

In 2011, GM introduced the LML and LGH Duramax engines and the new Bosch CP4 high pressure fuel pump. These systems have presented technicians with new service opportunities. In 2017, GM introduced the L5P Duramax that included a completely new high-pressure fuel system and turbocharger. Technicians will learn fuel system replacement procedures, LML tips, operating principles of the fuel and turbocharger systems on each of the new platforms, and exhaust aftertreatment systems for each application. (Available July 2022)

HVAC – KEEPING IT COOL

As environmental regulations continue to demand more fuel efficient and cleaner burning engines, manufacturers introduced more efficient HVAC systems with increased use of networked modules, sharing data and commands. While operating on basic refrigeration principles, there have been changes that require a different diagnostic approach, This class will refresh technician knowledge of refrigeration principles as they relate to diagnosing a fault in the refrigerant portion of the HVAC system. Effective diagnosis, component replacement and service will be demonstrated on R-1234yf equipped and R-134a equipped vehicles.

POWERTRAIN ELECTRONICS

Powertrains have evolved into complex systems relying on a variety of electrical components controlled by modules communicating across various networks. These are complex systems, but the diagnostics do not have to be complicated if fundamental electrical principles are understood. This course will focus on understanding electrical theory as it applies to powertrain systems including components such as sensors, actuators, and their control circuits. We will then use that theory to diagnose complex systems through real-life case studies.

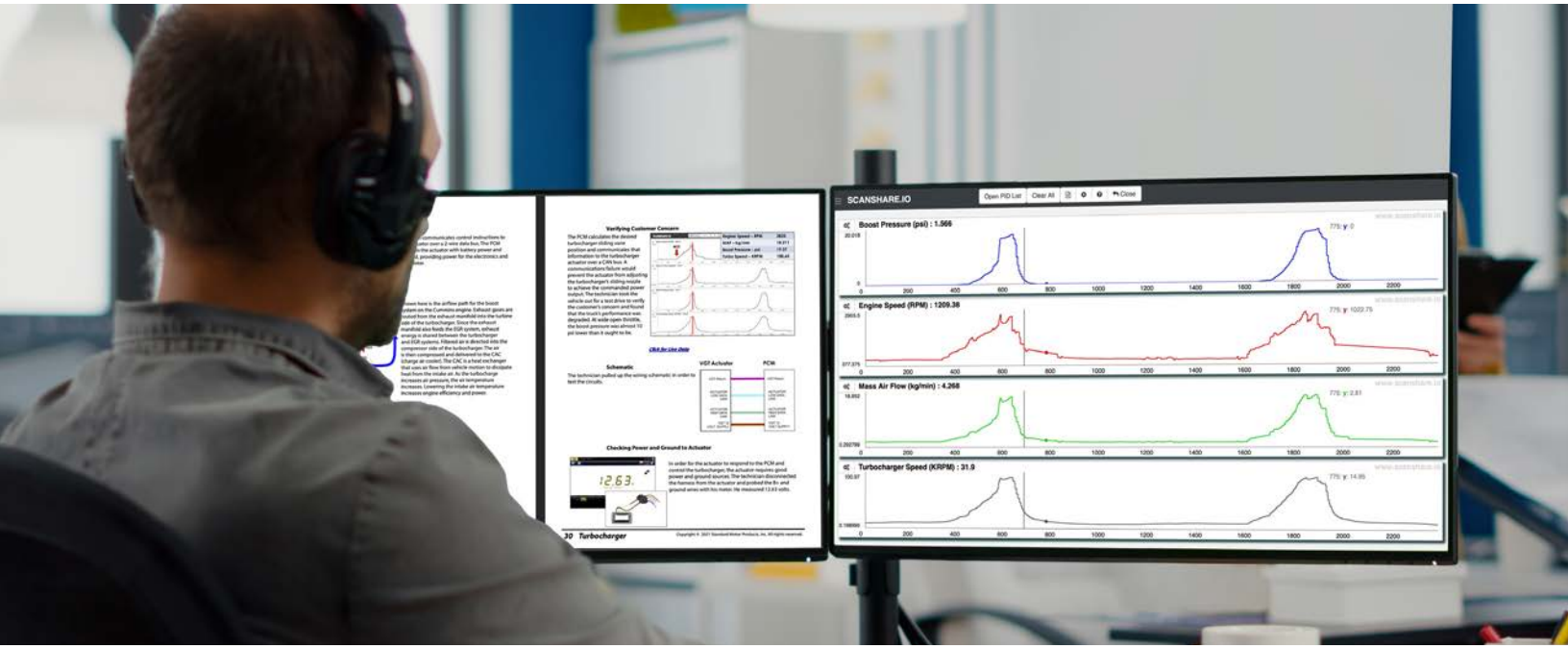
PUSH BUTTON START SYSTEMS

Passive entry and start systems using a "smart key" have been available for years. The smart key communicates wirelessly with a receiver which then communicates with other modules over a wired network. These systems are typically reliable, but when they fail resulting in a no-start, technicians must understand how to diagnose properly. The class will cover core components involved with all push button start systems, OE-specific components and their operation, and how to differentiate between a smart key system fault and a module-controlled starter fault.

VOLKSWAGEN & AUDI ENGINE CONTROLS

This course will take technicians through the underhood controls that are used on VW and Audi vehicles. Operation and testing of components and systems will be covered including priority input sensors, coil on plug ignition, VVT, drive-by-wire electronic throttle control, GDI and more. Scanner used acquire and analyze measuring blocks, perform basic settings, and output functions will be included. This class will help technicians fix misfires, no start problems, diagnose engine codes and other engine performance issues.

NAPA® ECHLIN® TRAINING



The NAPA® Echlin® Training Difference

NAPA® Echlin® on-site classes feature the most relevant content available today and are taught by professional trainers who are also experienced ASE-certified automotive technicians. These same professional instructors deliver NAPA® Echlin® virtual classes. Fully immersive virtual courses are delivered live via computer, with full instructor interaction, and feature a unique electronic workbook. Workbooks have live-links to videos, and allow techs to access the scan data recordings used in class. Students can interactively select their own data PIDS and participate based on the diagnosis data. NAPA® Echlin® virtual training is the next-best thing to being there!

NAPA® Echlin® is an ASE Accredited Training provider. This means that the program, trainers, and material have been validated and certified by industry experts. After attending one of these classes, techs can take an assessment to receive a certificate of completion and earn appropriate CEUs. That's the NAPA® Echlin® training difference!

Accredited Training Provider

To learn more about these training opportunities email **autotech@napaechlin.com**, visit **NAPAEchlinTraining.com** or contact your local NAPA® Echlin® BDM.

DORMAN TECHNICIAN TRAINING

FREE TECHNICAL TRAINING AVAILABLE
in addition to on-demand and live paid training options

YOU KNOW US FOR THE PARTS. NOW WE DELIVER THE SMARTS.

We are continuing to invest in the transportation aftermarket by offering in-person training throughout North America, and online training wherever you are. As vehicles are always changing, we are always releasing new solutions, and now that means both products and knowledge.

Register Today at
www.DormanTrainingCenter.com

For additional information contact
DTC@DormanProducts.com.

CURRICULUM INCLUDES:

- Computer Diagnostics
- GDI Driveability and Diagnostics
- Fuel Trim Diagnosis
- EVAP Systems
- Unlocking Potential of Your Scan Tool
- Master the Labscope
- And More!

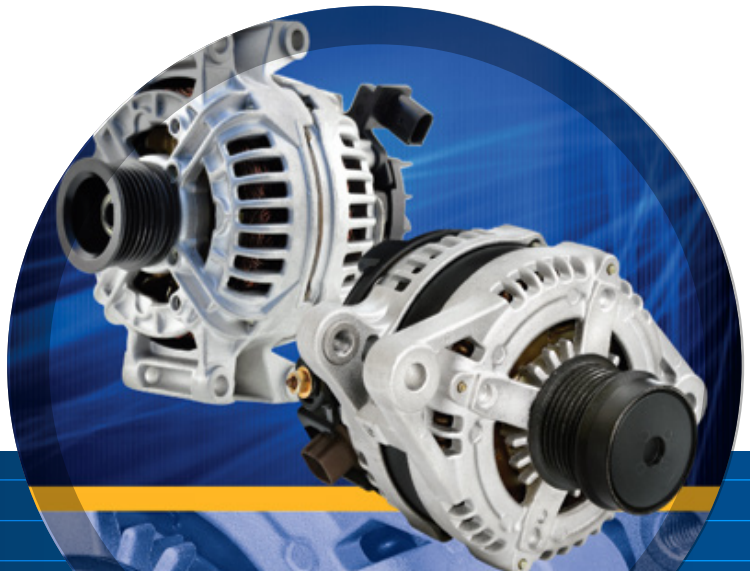
PRODUCT TRAINING

SUPPLIERS			
Altrom	Delphi	NAPA Air Tools	NAPA Shocks and Struts
Arnott Air Suspension	Dorman	NAPA Battery Chargers	NAPA Solutions
Autolite	DRiV	NAPA Belts and Hoses	NGK
Bosch	E3 Spark Plugs	NAPA Brakes	MANN
Balkamp	Eaton	NAPA Drive Tech	Premium NAPA Steering
BBB	Eneos	NAPA Echlin	Rancho
Cardone	Gates Hydraulics	NAPA Filters	SKF
Champion	KYB	NAPA Fuel Pumps	Valvoline
CRC	Liqui Moly	NAPA Heating and Cooling	
Denso	Martin Senour	NAPA Lighting	

Search for online product training courses by name, part, or supplier. Over 200 product training courses are currently offered on *NAPAAutotech.com* with more added regularly.

BENEFITS OF NAPA PRODUCT KNOWLEDGE:

- Confident employees
- Customer receives the right part the first time
- More sales by up-selling
- Fewer returns



NAPA TRACS

Industry Leading Estimating and Shop Management for Over 29 Years

NAPA TRACS is the right tool for estimating, shop management, technical information, CRM and accounting. TRACS users may take advantage of the following training resources:

- Onsite installation and training – right at your shop
- Live 800 # TRACS technical support 6 days a week
- Live, online web training sessions several times a week on a variety of TRACS topics
- Access to over 100+ online training videos
- Free TRACS user group meetings

Call 800-659-3710 and request a free, no obligations TRACS demonstration

NAPA PROLINK

Fast, Easy, Accurate

NAPA PROLink is an easy to use way to order parts online. Thousands of installers rely on PROLink each day to accurately identify vehicles and quickly search and order the NAPA parts they need. If you want a faster, more accurate and easy way to do business with your NAPA store, ask them to get you setup and trained on NAPA PROLink. Not only is it free, it's constantly being updated with new features and enhancements to streamline workflow and improve shop efficiency.

Call your local servicing NAPA Store or go to NAPAPROLink.com and click "Register" to get started today!

NAPA INTEGRATION PARTNER

NAPA Connectivity for 3rd Party Shop Management Systems

When you integrate NAPA cataloging and eProcurement into your estimating and shop management system, it saves you time, keystrokes and creates efficiency. The **NAPA Integration Partner** website - NAPAiBiz.com, is a one-stop resource that helps you connect your shop management system to your servicing NAPA store. See a complete listing of Integration Partners, set-up instructions and support numbers on NAPAiBiz.com.

For more information contact: NAPA Commercial Systems Support at 888-SET-NAPA (888-738-6272)

- NAPA TRACS
- R.O. Writer
- Epicore/ IAP users
- Snap-on ShopKey
- MitchellManager
- And Many More...

Go to *NAPAiBiz.com* for a complete listing of all NAPA Integration Partners and system setup instructions.

VEHICLE SERVICE INFORMATION RESOURCES:

Mitchell1 ProDemand

- OnDemand5.com is the Internet edition of Mitchell 1's legendary OnDemand5 Repair and Estimating desktop software program.
- Updated monthly, making it the most current and complete repair information database available.
- Features the most current and complete TSB repository available.
- Powerful TSB Search Engine allows you to search all TSBs for a vehicle on a keyword or phrase.

NAPA AUTOTECH™

THE WATERHOUSE GROUP

AUTOMOTIVE BUSINESS MANAGEMENT TRAINING, TOOLS & SERVICES

For Automotive Service Centers

Our courses focus on applying the techniques and methods of the 25% most profitable shops in the USA so that you can learn from the best what is working and not working. Our classes can help reveal huge profits that you may have been missing over time as well as how to better manage your shop's finances.

TOP 25% MOST PROFITABLE REPAIR SHOPS

1. Their SALES were $63,604 higher than average shops but earn $95,795 more net profit.
2. Generate $14,289 more ANNUAL GROSS PROFIT per employee
3. PARTS GROSS PROFIT is 2.5% higher than that of average shops
4. LABOR GROSS PROFIT is 3.5% higher than that of average shops
5. Sell $22.51 more sales per repair order higher labor and parts GP
6. Generate and sell $1,328 more monthly labor sales per technician
7. TOTAL GROSS PROFIT is 3.6% higher than average shops
8. OPERATING EXPENSES are 7.23% less as a percent to total sales
9. Their LABOR RATE is 8 cents LOWER than avg shops
10. Their shops are 7.2% MORE EFFICIENT and out-perform average shops in several additional categories

Vin Waterhouse

AUTO REPAIR SHOP COURSES

- Financial Management for the Auto Repair Business
- 3 Minutes An Hour Class Overview- "TEAM TECHNICIAN"
- The Service Manager...Plus
- Financial Health Check

Vin Waterhouse
Author of "The Labor Factory"
CALL OR TEXT: 617.901.0243

More than 20,000 people have attended Vin's classes & presentations.
Vin knows what high profit firms do differently and how they do it. Attend a Vin Waterhouse class and see what others do; share ideas and implement best business practices.

ATI Automotive Training Institute

autotraining.net

For more than 30 years, we've been helping thousands of automotive repair shop owners increase their profits, reduce stress, and grow their businesses into the companies of their dreams.

Whether you need training, coaching or a state-of-the-art business model, we've got systems to help make the changes you want right away.

- Cash Profits Boot Camp
- Tire Profits Boot Camp
- Consulting Services

DRIVE Power Your Shop • Fuel Your Freedom

driveshops.com

DRIVE - Combining proven training techniques with high-tech management solutions. DRIVE is the industry's top business consulting group, specializing in mechanical, collision and heavy-duty truck repair.

- Workshops and one-on-one consulting
- Shop Business Analysis
  - Helps identify the strengths and weaknesses in shops and examines every area of a business
  - Marketing and advertising team to implement shop's marketing solutions

Elite™ PEOPLE. PRINCIPLES. RESULTS.

eliteworldwidestore.com

Elite provides video and audio programs created specifically for auto repair professionals in Spanish and English.

TOPICS INCLUDE:

- Shop Sales
- Marketing
- Hiring and Managing
- Profit Building
- Coaching and Training

Repair Shop Of Tomorrow

repairshopoftomorrow.com

RSOT (Repair Shop of Tomorrow) -
Marketing and coaching company featuring a web-based time management system for your business. They provide predictive marketing and value-added propositions.

- Expert marketing
  - Marketing plan designed for your shop utilizing NAPA AutoCare programs to help with social media, email marketing, direct mail pieces and branded content
- Labor management

rlo TRAINING

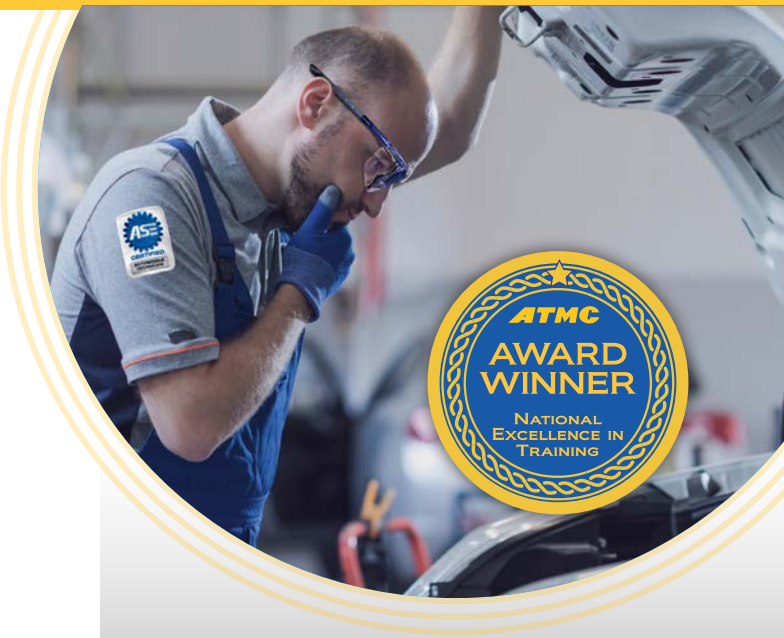
rlotraining.com

Top Automotive Service Providers seek out **RLO Training**, Inc. to help them align their companies with business goals and resources, resulting in proven increases in employee performance, profitability, customer satisfaction and loyalty.

- Instructor-Led LIVE Online
- Webinar Training
- Innovative Workshops
- High-Tech Presentations
- Easy-to-Follow Workbooks
- All Webinar Format
- Industry-Specific Training

NAPA AUTOTECH™

REASONS TO INVEST IN TRAINING



1 INCREASE JOB SATISFACTION LEVELS

Employees who receive training to improve their knowledge and skills have a much higher sense of job satisfaction. This reduces employee turnover and increases productivity, which directly improves your profitability.

2 STAY AHEAD OF THE COMPETITION

Being complacent about training can destroy your business. It is vital to the success of your business that your employees are just as knowledgeable, if not more, than your competitors. This will help ensure your store is competitive in the marketplace.

3 MAINTAIN AND INCREASE EMPLOYEE KNOWLEDGE AND SKILLS

With today's complex vehicles and the ever-changing product landscape, your employees' knowledge and skills need to be updated and refreshed on a regular basis. It is recommended that Technicians complete 40 hours of training annually.

4 IMPROVE CUSTOMER SATISFACTION

Knowledgeable employees, are absolutely crucial to delivering a positive customer experience and keeping customers coming back.

5 KEEP UP WITH THE LATEST TECHNOLOGY

Technology is changing on a daily basis, so employees need ongoing training to ensure they are using your shop's equipment and technology to its fullest potential.

ATMC AWARD WINNING COURSES

NAPA Autotech has received the National Excellence in Training Award from the Automotive Training Managers Council (ATMC) for its Engine Dynamics VE II and EVAP Guru classes.

To be selected for this honor, organizations must meet a level of excellence in seven training categories including Learning Objectives, Program Materials, Measurement of the Program's Effectiveness and others.